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The price of silver, after a brief reaction, has again risen and continues at a higher point than for five years past, sales having been made this week at 64½ cents an ounce in New York. Some of the causes of the new rise are explained by the movement of the metal this year, as shown in another column. A further reason is the general conviction that the Indian Government must be a large purchaser for some time to come. The efforts to limit the circulation of silver rupees have proved absolutely futile, and the India Council has been forced to order the new coinage to prevent general distress for currency.

It is stated that the Russian Government has decided to adopt the metric system of weights and measures and that a commission has been appointed to decide on a date for the change and the best methods of making it. This will add largely to the number of people using and trading by the metric measures, and will make it practically the standard over all Europe except Great Britain. This is another argument in favor of its adoption in the United States. Russia is a good customer, and there are excellent opportunities of extending our trade with that country. A common standard of measures would be very serviceable.

Some indication of the course of gold production in Alaska and the Yukon is found in the returns of the United States Assay Office at Seattle, to which a large proportion of the gold from the North finds its way. The total receipts at that office for the nine months ending with September are reported at $3,173,320 from Alaska, of which $462,893 came from other Alaskan points, and $2,710,427 from Nome. The receipts from the Atlin District in British Columbia were $493,116 and from the Yukon $16,374,488. Undoubtedly some gold from Nome went to San Francisco and other points, but probably not enough to raise the total to anything like the amount which the boomers promised us last spring.

In another column we publish a letter criticising the article on "How Mines Should be Examined," which appeared in our issue of October 20th last.

We gladly give place to this letter, which contains practical suggestions too often overlooked by the young engineer.

A full discussion of the subject, "How Mines Should be Examined," is very desirable and we hope our readers, both mining engineers and laymen investors in mines, will give us their views. A thorough discussion in these columns, which are read in every part of the world by investors and experts, will certainly be productive of good results in lessening the risks in mining investments and thus rendering this industry more popular with capitalists.

For the three-quarters of the current year which ended with September the value of the exports from the United States is given by the Bureau of Statistics at $1,012,746,967; and of this great amount the exports of manufactures furnished a total of $338,678,243, or 33.4 per cent. Last year the exports of manufactures were valued at $227,502,649, or 31.3 per cent. of the total; so that they have shown this year an actual increase of $111,175,594, and a gain of 2.1 per cent. in their proportion to the total exports. We may add that iron and steel furnished this year 28.8 per cent. of the total exports of manufactures, while in 1899 they formed 33.7 per cent. This shows a decrease of 4.9 per cent. in the proportion to the total, although the actual amount of the iron and steel exports showed an increase of $20,743,205.

The University of Texas at Austin has recently established a department of Field and Economic Geology. This new department will include the organization and conduct of a geological survey of the State under the auspices of the University. The survey, which was well begun under Dr. E. T. Dumble several years ago, was allowed to lapse, through lack of proper support from the Legislature, notwithstanding its great importance to the State. We are informed that the head of the new department in the University, and consequently of the survey, is to be Dr. William B. Phillips, who is well known to the readers of the "Engineering and Mining Journal." The State of Texas is to be congratulated on obtaining the services of a gentleman so entirely competent for the work, and we trust that he will receive the full support and confidence which he will surely deserve.

The terrible explosion which this week wrecked a large chemical warehouse in New York and destroyed the adjoining buildings, with the loss of a number of lives, is not yet completely explained. It appears, however, that a large quantity of chlorate of potash was stored in the building. This substance, though not an explosive under ordinary conditions, may become extremely dangerous when subjected to heat and other influences. In May, 1899, an accident similar to that of this week in New

York was caused at St. Helens, England, by the explosion of chlorate of potash. That explosion was felt over an area of about 20 miles, and only 25 persons were either killed or injured. The fire which started the explosion originated in another part of the works, and spread to the roof of a building in which about 156 tons of chlorate of potash in powder and crystals was stored. In a few minutes a terrific explosion occurred, and for a quarter of a mile away nearly every window was shattered. The explosion of the chlorate of potash in the storehouse was probably due to the sudden liberation of the oxygen from the large mass of chlorate which intensified the effects due to the smoke-laden atmosphere and the presence of much charred wood. A very full description of this explosion and an analysis of its causes were given by Mr. J. B. C. Kershaw in the "Engineering and Mining Journal," July 1st, 1899. This article will be interesting reading in connection with the New York explosion this week.

The Nome excitement this year attracted so much attention that comparatively little has been heard from the Klondike. Indeed, in the early part of the season a number of miners and prospectors left the Yukon country for the coast. These belonged chiefly to the floating element, which is always ready to take part in a rush, and there seems to have been men enough in the region to take their places. Though there has been little sensational news from the Klondike this year, a good deal of mining has been done, and the best estimates put the gold production for the season at about the same as in 1899. The miners who have settled there for the present have been able to do more and better work, since experience has shown them how to meet the difficulties of the climate and local conditions much better than at first. Moreover, the completion of the railroad from Skagway to the navigable waters of the Yukon has solved the transportation problem fairly well. Passengers and freight can start for Dawson with some certainty of getting through on time; and telegraphic communication is now a fact. We may look upon the Yukon country as a steady gold producer for some time to come.

The stocks of the Chilean nitrate companies, which were brought out in London some years ago with a "boom" in which the late Colonel North acquired a large fortune, have been since at a low point and have been carefully avoided by speculators and investors. The nitrate business was, in fact, so overdone that the resulting competition and low prices made it unprofitable. Recently there has been a revival in these stocks, owing to the reports of a combination among the producers, and, we are now informed, an agreement has been concluded which provides for a restriction of production and the maintenance of prices. How effectual this agreement will be and how long it will last remain to be seen. It may fail, as previous combinations have done, through the jealousies of the producers and quarrels over the allotment of production. In any case the agreement needs very careful management. Consumers have become used to buying their supplies at a low rate, and too sharp or too great increases in price may cut down the consumption to an undesirable degree. It must be remembered also that the Chilean Government has an interest in the maintenance of a large production, since it derives a considerable revenue from the export duties levied upon it. The Government has also large areas of undeveloped nitrate lands, and should prices be maintained and profits be earned on the business, it would be easy to offer inducements to new producers outside the combination. The future of the business is still a precarious one.

THE SETTLEMENT OF THE ANTHRACITE COAL MINERS' STRIKE.

The great majority of the miners in the Pennsylvania anthracite region returned to work on the morning of October 29th, in obedience to the order issued by President Mitchell of the United Mine Workers on October 25th. This order announced that the principal companies had signified their willingness to pay a 10 per cent. advance in wages, that the largest companies in the Schuylkill and Lehigh regions agreed to suspend the sliding scales, and that wages should remain stationary at the advance until April 1st, 1901. Many newspapers have characterized the outcome of the strike as a great victory for organized labor, and have commented favorably upon the general orderly conduct of the strikers, and the few outbreaks of violence. In this respect they but show the same curious inability to see clearly the facts in the case that they have shown since the strike started. Following the news of the settlement of the strike, comes the announcement that the principal mining and transportation companies will advance the price of coal 25 cents a ton over the prices ruling nominally, on September 1st.

The original demands of the United Mine Workers, made at the Hazleton Convention on August 27th called for the abolition of the company store system; a reduction of the price of powder to $1.50 per keg; abolition of the sliding scale in the Lehigh and Schuylkill regions; compliance with the semi-monthly pay law; 2,240 pounds to constitute a ton in mining; an advance of 20 per cent. in wages for men receiving $1.50 per day, and an advance of 15 per cent. for all day laborers receiving $1.50 to $1.75 per day, and an increase of 10 per cent. for all day laborers receiving over $1.75 per day; no miner to have at one time more than one breast gang, or other class of work, and none to get more than his legal share of cars. In addition, the miners demanded special mining scales for inside work, in the first, seventh and ninth anthracite districts; these scales to be based on the thickness of the seam, while all dockage was to be determined by joint action of a check weighman appointed by the men and the regular company docking-boss.

It has been stated on apparently reliable authority that political considerations entered into the calling of the strike in September and into its final settlement. The officials of the United Mine Workers were shrewd enough to realize the forces at work in a Presidential campaign, and made the most of their opportunity, while certain of the campaign managers realized the advantage of preventing any such outbreaks as the Homestead riot in 1892. This political influence accounts largely for the small opposition the strikers encountered in their attempts to compel non-union men to stop work. The State authorities apparently did not dare interfere, so long as the strikers did not destroy property. The officials of the United Mine Workers have shown wisdom in restraining the men from burning breakers and concentrating their influence on the unwilling miners.

It will be seen that all the miners have actually secured is a 10 per cent. advance in wages till April 1st, and abolition of the sliding scale, a mere fraction of their original demands. This is proof, either that some of those requirements did not apply to the whole field, and hence could not be covered by a general agreement, or that the Union officials are content with having shown the operators the strength of the Union. As to the sliding scale, this was originally secured by the miners by a strike, and the operators have never cared about it. In fact, they are probably glad to suspend it. The 10 per cent. advance in wages will be met by the increased price of coal due to an active demand from the approach of winter, and to the small supplies on hand because of the strike. The real causes of the strike, however, are not touched by the settlement, and there is no reason to suppose that the present agreement will last long. Were the questions at issue to be settled solely on their merits, there would be radical changes in marketing coal or an adjustment of conditions that would close down the mines most expensive to work, and concentrate mining at the collieries where coal can be produced most cheaply. Nothing has been done to reduce permanently the number of laborers in the region, to lower the fixed charges on anthracite mining, or to increase the market for hard coal in competition with bituminous. In fact, the 10 per cent. advance in wages works directly against these conditions. It will tend to keep men in a field where they cannot be sure of employment over 200 days a year; it will increase the price of anthracite and thus increase the competition from other fuels. The settlement heralded as a great victory for the miners really settles nothing at all.

THE SILVER MOVEMENT FOR NINE MONTHS.

The movement of silver for the three-quarters of the year, which closed with September, has been an active one, and presents some interesting features, which a brief study will bring out. The main features have been a very large demand for the metal, which has been promptly met by the producers; increasing shipments from San Francisco direct to the East; and an emphasizing of the position of the United States as the leading producer and a controlling factor in the silver market.

In the following table we give the imports and exports of silver in Great Britain for the nine months, as stated in sterling values by the British returns:

	—Imports.—		—Exports.—	
	1899.	1900.	1899.	1900.
United States	£6,575,983	£8,060,107	£8,487	£28,500
Canada	.....	.....	16,403	34,662
Mexico and South America	783,525	397,194	153,161	93,141
European countries	2,151,348	799,335	4,564,272	1,446,832
Africa	102,555	47,667	424,166	592,760
The East	473	126	5,438,382	7,007,852
Australasia	170,395	115,363	122,175	161,750
Other countries	12,624	4,906	75,811	249,378
Totals	£9,796,703	£9,424,698	£10,802,857	£9,614,875

In the imports the most marked feature is the increasing proportion furnished by the United States. The silver received from this country showed this year an actual increase of £1,484,124, or 22.6 per cent.; while it formed 85.5 per cent. of the total, against 67 per cent. last year. There was a large falling off in the receipts from European countries, chiefly from France and Belgium. This is an exchange movement, however, varying from year to year, but nearly balancing in the long run. It is to be noted that the receipts from Mexico and South America show a considerable decrease, and this is due chiefly to the increasing proportion of Mexican silver which finds its way to London through

the United States. The receipts from Australasia show a considerable decrease this year; and it is a curious fact that, notwithstanding the large output of the Broken Hill Mines, Australasia took from Great Britain £46,387 more silver than the Australian mines sent there.

In the exports we find a large decrease in those to European countries. The change was chiefly in the shipments to Russia, which were only £418,836 this year, against £2,983,343 last year. Evidently the Russian demand for coinage is satisfied, and the quantity taken for use in China has decreased very largely. As Russia has not ceased to spend large sums in China, it is probable that the Government has found some other source of supply, and has bought silver, very probably, from Broken Hill direct ; and certainly from San Francisco.

The movement to Eastern Asia continues very large, and is shown in the table below. In this we have added to the London exports the shipments from San Francisco to Chinese and Japanese ports, reducing the value of the latter to sterling for purposes of comparison:

	1899.	1900.	Changes.
British East Indies	£4,162,007	£4,968,476	I. £806,469
Japan	.....	89,800	I. 89,800
China	1,276,375	1,949,576	I. 673,201
Totals	£5,438,382	£7,007,852	I. £1,569,470
San Francisco to China	971,080	2,346,869	I. 1,375,789
San Francisco to Japan	.....	13,047	I. 13,047
Totals	£6,409,462	£9,367,768	I. £2,958,306

We find from this table that China has taken from London and San Francisco a total of £4,296,445—about 37,450,000 ounces—in silver this year, an increase of 91.2 per cent. over last year. Two causes may be given for this, one being the large expenditures made by European nations and the United States in China, and the other—and more important—being the continued trade disturbance caused by the insurrection and foreign war. During these troubles Chinese merchants have declined to increase their stocks of foreign goods, and have required payments for exports in silver, which is more easily handled and concealed than foreign goods in case of trouble.

Japan appears as a buyer of silver for the first time since the gold standard was adopted. As most of the £102,847 in silver was taken in recent months, it is probable that it was largely used to pay the expenses of the Japanese troops in China; and therefore must be added to the quantity which went to that country.

We have heretofore referred to the large purchases of silver which the Indian Government has been forced to make this year for coinage purposes entirely. The Indian mints, though still closed against private parties, have been turning out a large number of silver rupees which the Government found necessary to maintain the circulation and meet its famine and other extraordinary expenditures. This silver has been paid for chiefly by gold taken from the Government treasury in India or London. We may add that some Australian silver has found its way to India.

The total increase in shipments to the East, as shown in the table, was £2,958,306, or 46.2 per cent. It shows that the capacity of China and India to absorb silver is not diminishing, and that a market can be found there, in all probability, for a long time to come.

The price of silver has now been at a fairly high level for some time past. It promises to remain in that position for the present, certainly as long as the present great demand continues. In fact it has this year shown a further rise, to a point higher than has been reached for five years.

NEW PUBLICATIONS.

"Famous Gold Nuggets of the World." Compiled by Thomas Jefferson Hurley. New York; published for the Author. Pages, 64; illustrated.

In this little book Mr. Hurley has collected the descriptions and records of a number of notable gold nuggets found in different parts of the world. A nugget is attractive in itself and interests almost everyone, and the facts here presented make up a curious record. Few would suppose, for instance, that the world's record for the greatest production of gold nuggets, as to size, value and quantity, was held by North Carolina; yet the claim of the Reed Mine in Cabarrus County in that State for such a record is well substantiated. This mine has yielded nuggets weighing 28 lbs., 17 lbs., 16 lbs., 13¼ lbs., 9½ lbs., two of 9 lbs. each, two of 8 lbs. each, 5 lbs., 3½ lbs., two of 2 lbs. each, and one of 1¾ lbs. The Beaver Dam and Sam Christian Mines, in Montgomery County of the same State, were also great nugget mines in their day. California has produced some famous nuggets, and a few have been found in Colorado. Contrary to general belief, Alaska and the Yukon has produced no large nuggets. Australia and Siberia have yielded a number, some of extraordinary size. One must read Mr. Hurley's book, however, to get all the facts he has carefully collected and arranged in a very interesting way. A number of the noted specimens are illustrated from photographs.

"L'Industrie Minerale de Bosnie-Herzegovine." By Franz Poech. Vienna, Austria; published by the Government of Bosnia-Herzegovina. Pages, 56; with map and illustrations.

This monograph was specially prepared for distribution at the International Congress of Mining and Metallurgy held in connection with the Paris Exposition. It contains a historical sketch of the mining industry in the provinces of Bosnia and Herzegovina, which has developed considerably since they came under Austrian rule. Their mineral resources are more extensive than is generally supposed, and the monograph refers to deposits of salt, petroleum, coal, iron ore, pyrites, chrome ore, manganese ore, gold, silver, lead, zinc, copper, quicksilver and arsenic; as well as asbestos, asphalt, magnesite, refractory clays and glass sand. But few of these mineral deposits have been developed to any extent, but a good beginning has been made. Silver-lead mines were worked 1900 years ago by the Romans, and again in the Middle Ages. Iron was made also as far back as the Fourteenth Century. The present development is therefore the revival of a very ancient industry.

"Baldwin Locomotive Works. Illustrated Catalogue of Narrow-gauge Locomotives." Compiled and published by Burnham, Williams & Company, Philadelphia. Pages, 452; illustrated.

This substantial book is a good deal more than a catalogue. It includes a condensed history of the Baldwin Locomotive Works from the time Matthias W. Baldwin turned out the "Old Ironsides" from his little shop in 1832, up to the present date, when his successors are making nearly 1,000 locomotives a year, not only for the United States, but for many foreign countries. This part might be called a history of locomotive development in America. The story is well told and is illustrated by many sketches and photographs of locomotives and their parts.

The catalogue section illustrates and describes the different types of locomotives built by the Baldwin Works for narrow-gauge railroads—that is, lines having a track width of 3 ft. 6 in. or less. These include a variety for all classes of service. There are railroads as narrow as 2-ft. gauge, and one engine is mentioned which is running on a 20-in. gauge. The concluding section gives a large number of drawings of details, which are exceedingly convenient for master mechanics. A telegraph and cable code is added by which parts for repairs can be ordered from the works. The book is well illustrated and is also well printed and bound, as all the Baldwin publications are.

BOOKS RECEIVED.

In sending books for notices, will publishers, for their own sake and for that of book buyers, give the retail price? These notices do not supersede review on another page of the Journal.

"Galvanizing and Tinning." By W. T. Flanders. New York: the David Williams Company. Pages, 94; illustrated. Price, $2.

"Labor Chronology. 1899." By Horace G. Wadlin, Chief of the Bureau of Labor Statistics of Massachusetts. Boston: State Printers. Pages, 248.

"Transactions of the Association of Civil Engineers of Cornell University, 1900." Ithaca, N. Y.: published by the Association. Pages, 132; illustrated.

"Western Australia. Report of the Department of Mines for the Year 1899." Perth, W. A.: Government Printer. Pages, 286; with maps and illustrations.

"Report of the United States Commissioner of Education, 1898-99." Dr. William T. Harris, Commissioner. Washington: Government Printing Office Pages, 1,248.

"Montana Society of Engineers. Synopsis of Proceedings During the Year 1899." Robert A. McArthur, Secretary. Butte, Mont.: Published by the Society. Pages, 68.

"Manual of Explosives. A Brief Guide for the Use of Miners and Quarrymen." By Courtenay De Kalb. Toronto, Ont.: Issued by the Ontario Bureau of Mines. Pages, 128.

"The Johnstown Centennial, 1800-1900. Early Iron Enterprises in Cambria, Somerset, Westmoreland and Indiana Counties in Pennsylvania." By James M. Swank. Philadelphia: Published for the Author. Pamphlet. Pages, 16.

"A Deep Waterway From the Great Lakes to the Gulf of Mexico." Papers and Discussions of the Western Society of Engineers. Chicago: Reprinted for the Illinois River Valley Association. Pages, 76; with maps and illustrations.

"Les Mines du Japon." Prepared by the Bureau of Mines of the Ministry of Agriculture and Commerce of Japan, and distributed by the Imperial Commission of Japan at the Paris Exposition. Pages, 530; with maps and illustrations.

CORRESPONDENCE.

We invite correspondence upon matters of interest to the industries of mining and metallurgy. Communications should invariably be accompanied with the name and address of the writer. Initials will only be published when so requested.

Letters should be addressed to the MANAGING EDITOR.

We do not hold ourselves responsible for the opinions expressed by correspondents.

Taxation of Mines in Michigan.

Sir:—I noticed your editorial in your issue of the 20th inst. relative to taxation of mining property in the Upper Peninsula of Michigan. I must enter my protest against its statements. There is no party in Michigan, and never has been, which wants the mining property to pay a cent more than its just share of taxation. On the contrary, the people of all parties in Michigan want them to be assessed and taxed equally and on the same basis as other property is assessed and taxed. Up to the present time this has not been the case. The big mining companies, in common with certain railroad companies and various other large corporations, have either escaped taxation entirely or have been assessed at a very much lower rate than other property in the State, and the people of Michigan, without distinction of party, do not propose to stand it any longer than they are compelled to.

The direct tax movement has not failed, but is on the high road to success and the people of the State will vote on the question November 6th. If they vote down the constitutional amendment at that time there will be time enough to say the movement has failed.

The movement is not specially against the mining companies altogether though they have been worse sinners than some others, because practically they made their own assessment; but it is to obtain as nearly as possible just and equal taxation of all property according to its true value. The farm and the mechanic's home are taxed according to their cash value regardless of whether they are earning their owners anything or not. The people of Michigan, without distinction of party, are trying to nave the same rule apply to the property of the big corporation that applies to the property of the humble farmer or mechanic. We want them all treated justly and equally.

Climax, Mich., Oct. 23, 1900. F. Hodgman.

Copper Mining in North Carolina.

Sir:—While in your city a few days ago I was severely interrogated as to why the Union Copper Company's mines and other mines in North Carolina did not pay. This was by one I have reason to know is financially interested. I admit that we have many failures at our mines and yet the fact remains that there exist numerous deposits of gold, silver, copper and lead that will prove remunerative if worked in a legitimate and business-like manner. As one of the causes of failure, let us review the metallurgical errors of the Union Copper Mines located near here. Their ore primarily is iron and copper pyrites, with small percentages of the usual carbonates and oxides and occasionally precipitated metallic copper. In certain parts of the mine these pyrites are gold and silver bearing, so as to be classed as gold ores having copper values. This being the ore, where is the difficulty in treating it when it exists in paying quantities as it does in this instance? Ores of like character and value are being worked at a profit in more difficult localities and yet the Union Company erected a concentrating plant at a cost of over $100,000 that would not concentrate because it was not adapted to the ore. Hence the failure of the mine to be profitable at this date.

Report now says they are to try another method—reducing the ore wet in Huntington Mills and concentrating by a system of sizing and jigs. Should this experiment also prove unsuccessful we should not let the failure be attributed to the mine, as it is capable of supplying the ore, and there are known and certain methods of working such ores at a profit. The claim is that in wet concentration the ore slimes and thereby certain values are lost. The writer has encountered the same difficulty with the same ores of the Union and Gold Hill mines; but he did secure very satisfactory results by first giving the sulphuret ore a magnetizing roast and then by the use of magnets extracting the metal with the gold and silver. This method has been put into practical operation at the rate of 50 tons per day by Messrs. Wilfley and Gee in Arizona and has solved the problem of the separation of copper-iron pyrites from zinc, blend and galena. By this method the concentrate is perfectly dry and ready for shipment and the process may have an advantage over the wet system as used at the Union and other mines in this district.

The writer is interested and believes in the North Carolina mines, having spent some 20 years here in mining and metallurgical operations. He believes in the future of the Union and Gold Hill mines from personal examination and operation. The key to permanent success at these mines is proper concentration. The same idea will apply to many other attempts at mining and treatment of ores in this State, which will fail not because of the mines, but for the want of knowledge. None of us knows it all. Some of us know enough in certain lines, while many do not know what they are undertaking. In the words of the West, "Give the mines a square deal" and the result will be in keeping.

A.

Salisbury, N. C., Oct. 22, 1900.

How Mines Should be Examined.

Sir:—In your issue of October 20th, 1900, there is an article by Mr. O. H. Packer on this subject which invites some discussion. Your correspondent seems to draw a sharp distinction between a mine and a prospect, and seems to conclude that while a mine may be examined, a prospect is unworthy of serious consideration. But it appears to me that there is no such clear-cut and definite distinction. What one expert might call a mine, another might call a prospect, and, in fact, that is usually one of the matters to be determined by the examination.

From the standpoint of an investor in such property, it appears to me that what should be insisted upon is a more careful and painstaking consideration of all of the facts and circumstances favorable and unfavorable, which would have a bearing upon the advisability of the investment. In all such investments, it is usual to consider the chances of success in connection with the probable result. The investor is entitled to know not only whether the mine itself is filled with ore of a certain grade, but also whether under the conditions surrounding the property the mineral can be profitably extracted and marketed. While these maters are of equal importance with an examination of the mine itself, they usually require a larger percentage of good common sense than technical knowledge. It is just at this point that so many mistakes are made in mining investment. A high-priced expert is sent out and he makes a learned report upon the geology, character and contents of the ore, and the property is either accepted or rejected upon his finding. This is just such a case as if anyone proposed to establish a shoe factory should get an expert in the manufacture of shoes to report upon the feasibility of making shoes out of certain classes of leather and material and machinery without regard to the conditions as to obtaining the necessary labor or marketing the product. It seems to me that investors should pay more attention in the selection of experts, to the general character and good judgment of the expert than to his technical abilities. I am far from underrating the technical part of such an examination, but what I mean to say is that it is not the whole thing, and I believe such reports usually give undue prominence to that part of the examination. When one is called upon to make a report upon a mining property he should first study the history of similar properties surrounding the one to be examined, and make a careful note of all facts pertaining to such properties, and all circumstances which might in any way affect or influence the proposed investment. He should state such facts as he learns from his own knowledge as facts, and give his authority for the statements he obtains from others. The investor wants to know about the climate, the labor conditions, the freight charges and transportation facilities in general; the facilities for obtaining wood and water and all other materials which might in any way enter into the problem of extracting the minerals from the ore and marketing the product.

After these things have been carefully studied and noted, the expert is ready to examine the mine itself. He should make his samples from numerous places, always taking the ore from the vein itself. No sample should be less than 100 lbs. of ore, and these samples should be carried to the surface and there carefully pounded up until the largest piece is not over the size of a hickory nut, after which they should be quartered down carefully until a sample of about 5 lbs. is made for the assayer. Notes should be kept in the note-book as to the place from which the sample is taken and a careful statement as to the conditions of the vein at that point, giving its size and any other circumstances which might be considered important. A part of each of these samples should be carefully panned out by the examiner in an ordinary gold pan in order that he may study the mineral contents of the ore in this way. If it appears that the gold exists in coarse particles, it would show that the result of his assays would be entirely too uncertain to constitute the foundation of an opinion as to the contents of the ore.

To illustrate this, suppose a sample of 100 lbs. contains 0.05 oz. gold; this would mean that the ore contained a gold value of $20 to the ton. If this gold in the ore consisted of five particles of 0.01 oz. each, as might well be the case, and the 100 lbs. sample was reduced down to the ordinary size for making an assay, it would be divided into 1,000 parts, and one of these parts only would go into the assay sample. The gold being malleable and not easily broken up into fine particles, would still exist in comparatively few parts, which we may assume to be not more than 10 parts, so that the chances of having one of these parts in the assay sample would be only 1 to 100. Your assay might show a result of several hundred dollars to the ton, but you might make 99 assays out of the sample which would show only a trace or nothing, while the true value of the ore would be $20 per ton in gold. This is merely an illustration of what might happen and what frequently does happen where reliance is placed entirely upon the result of assay samples in purchasing a mine. If it appears from a careful examination of the ore that the mineral exists in very fine particles, then by taking a large number of assays a reasonable estimate may be formed as to the contents of the ore, but under general circumstances an investor should insist upon a working test of several tons, under ordinary working conditions.

Another mistake which is frequently made by mining men who pose as experts is to take a number of assays from a mine, or a number of working tests, and then by striking an average of the results obtained put it finally as the average value of the ore. This is entirely erroneous, as can be shown from an actual result which I once witnessed in the examination of a mine by a well-known expert. About 20 samples were taken from which assays were made. In two of these the assay showed a value of over $100 per ton; there were several which ran from $2 to $5 per ton and others varying, so that when the 20 assays were added together and divided by 20 it gave an average result of nearly $30 per ton for the ore. A working test was made upon 1,000 tons of this ore and it was found that it did not run over $8 gold per ton. These assays were entirely accurate and the samples were made with the greatest care, but the trouble was that the nighest assay came from the place where there was the least quantity of ore, and the lowest assay come from the place where there was the largest quantity of ore, so that really an assay means nothing, unless you know how much ore there is of that character.

Of course, these are very elementary principles, but they are nevertheless frequently confusing to investors, and many men have lost thousands of dollars by not taking them into consideration.

Hunter M. Meriwether.

Kansas City, Mo., Oct. 24, 1900.

ABANDONED MINES IN SPAIN.—The Spanish Minister of Public Works, says the London "Colliery Guardian," has stated his intention of compiling a general descriptive catalogue of all the abandoned mines, giving information as to the history and circumstances of their working, as well as all the details that can be collected of a nature to permit the Government mining engineers to make themselves acquainted with each case. When the definite forfeiture of abandoned mines is declared, they will be offered in the first place to Spanish capitalists on the simplest and most favorable conditions; and, after a certain determined period has elapsed, those mines not taken up by Spaniards will be offered to foreign capitalists and companies.

COAL CONTRACTS IN AUSTRIA.—The administration of the Austrian State Railroads has just published details of their coal consumption. The total quantity of coal required for 1901 is estimated at 2,324,000 tons. Of this quantity, 1,125,000 of tons has already been secured by existing contracts. For the remaining 1,074,000 tons public bids were asked for some time ago. Altogether, 30 bids were received from Austrian and Upper Silesian mining companies, and a quantity of 1.036,000 tons has been secured. The report says that the increase in the prices, as compared with the previous year's contracts, is great, and that on an average this increase amounted for bituminous coal to 37 per cent., and that even at these high prices the quality of the coal is lower than that of the previous year. Another drawback is that the contracting mining companies made so many reserves and extra stipulations that it is a great question whether the State railroads can rely upon the delivery agreed upon.

IRON AND STEEL EXPORTS.

Exports of iron and steel—including all machinery except agricultural implements—from the United States for the nine months ending September 30th were valued by the Bureau of Statistics of the Treasury Department at $97,313,060; which compares with $76,569,205 last year and $59,990,665 in 1898. The increase therefore was $20,743,205, or 27.1 per cent., as compared with last year; and $37,322,395, or 62.2 per cent., as compared with 1898. The chief items of the exports in 1899 and 1900 were as follows, in long tons:

	1899.	1900.	Changes.	Per ct.
Pig iron	194,395	162,498	D. 31,897	16.4
Bar iron and steel	33,288	56,478	I. 23,190	69.4
Billets and blooms	24,623	47,246	I. 22,623	92.0
Steel rails	185,997	288,926	I. 102,929	55.3
Sheets and plates	48,052	33,645	D. 14,407	30.0
Wire rods	14,600	5,389	D. 9,211	63.1
Structural iron and steel	43,236	50,657	I. 7,421	17.2
Wire	86,438	59,127	D. 27,311	31.6
Nails	32,406	32,867	I. 461	1.4

The most important increases were in rails, in bars and in billets; while the large decreases were in pig iron, in plates and in wire rods. The increase in rails was chiefly to Canada, Mexico and Japan. Shipments to Europe showed very little change. The Japanese, who seem inclined to be good customers, took 41,404 tons this year, against 1,371 tons last year, and 42,417 tons in 1898. Rails were the largest single item of export.

COAL EXPORTS FOR NINE MONTHS.

Coal and coke exports from the United States for the nine months ending September 30th are reported by the Bureau of Statistics of the Treasury Department as below:

	1899.	1900.	Increase.	Per ct.
Anthracite	1,182,841	1,352,546	169,705	14.4
Bituminous	2,841,737	4,642,024	1,800,287	63.3
Total coal	4,024,578	5,994,570	1,969,992	48.9
Coke	194,756	271,248	76,492	39.3
Totals	4,219,334	6,265,818	2,046,484	47.7

Most of the anthracite went to Canada. The greater part of the coke was shipped to Mexico. The division of the coal exported was as follows:

	1899.	1900.	Increase.	Per ct.
Canada	2,962,961	4,174,446	1,211,485	40.9
Mexico and Central America	433,586	519,492	85,906	19.8
West Indies and South America	538,653	668,212	129,559	24.0
European countries	19,316	469,105	449,789	2328.5
Hawaii and the Philippines	63,868	70,068	6,200	9.7
Other countries	6,194	93,247	87,053	1405.4
Total	4,024,578	5,994,570	1,969,992	48.9

Of the coal sent to Europe 4,360 tons went to Great Britain; 4,969 tons to Germany; 137,310 tons to France and 322,466 tons to other countries, chiefly to the Mediterranean ports. It will be seen, as we have heretofore said, that France and Southern Europe are the countries which are becoming our chief customers for coal, and little trade is to be looked for with Great Britain and Germany.

IMPROVEMENTS ON THE COMSTOCK LODE.

The latest attempt to revive mining on the Comstock has been the introduction of electric power. The completion of this work was formally celebrated last week. The work which has been done is described as below in the San Francisco "Bulletin":

Work was begun upon the electric power plant recently completed by the Truckee River General Electric Company in the latter part of 1899. The big dam across the Truckee River at Floriston was completed in February and the great flume was finished in the early summer. The power house was built in the most substantial manner. There are over 2,000 bbls. of cement in the foundations. Two sets of water wheels, each set of which can produce 1,750 H. P., have a total capacity for 3,500 H. P. from water. The electrical portion of the machinery is at present capable of delivering to the mines in Virginia City 2,000 H. P. The contract with the Comstock mining companies calls for the delivery of 1,000 H. P. at $7 for each indicated horsepower up to 2,000 and for amounts over that, $6, gradually reduced to $4, according to the amounts used.

The main line of the power plant from Floriston on the Truckee River to Virginia City is 33 miles in length. This line is a double one and in fact all parts of the generating and delivering machinery are in duplicate, so that, should one part break down, the other may be used until repairs are made, so that there will be no interruption to the service. On the Comstock the electric power is distributed to the mines from a sub-station containing switchboards, transformers, lightning arresters and every safety appliance. The distribution line from the sub-station north to the Union and Sierra Nevada shafts and south to the Yellow Jacket and Belcher shafts is 2½ miles long with branch lines connecting with the Gould & Curry mill and other plants off the main route. Eventually the distribution line will be extended on south to Silver City and the total length of the line will then be 5 or 6 miles.

Besides the water power now used from the Truckee River, the company has a reserve supply of water equal to 10,000 H. P. It owns 7 miles of land along that stream and has the right to take water from Donner Lake and from other points. There will therefore be an ample amount of power for use on the Comstock and in the surrounding districts should mining operations become active. The outlay involved in the construction of the power plant and the purchase of land and water rights is said to have been upward of $750,000. The Comstock mining companies, with a final payment of $25,000 soon to be made, will have contributed $100,000 as a bonus to the Truckee River General Electric Company, under the terms of the contract. This bonus money is held in escrow, and is to be rebated to the companies in percentages as they use and pay for the electric power.

In anticipation of this cheap power the Gould & Curry Company has just completed a mill for treating its low-grade ores. This mill, which was started last week with electric power, is a concentrating plant having a daily capacity of 100 tons of ore. The ore is run from the lower tunnel of the mine (the 425 level) and dumped over a grizzly into the mill bins, the coarse ore passing to a Gates rock breaker and broken to 2 in. On the first floor below the bins, the ore passes to five heavy Kinkead mills, where it is crushed through 20-mesh screens, sized and carried to Frue vanners on the second floor below the bins. The tailings from the first set of vanners are then carried to four Kinkead mills located on the third floor below the bins, where they are reground through 60-mesh screens, and sized and carried to the second set of vanners located on the fourth floor below the bins. The slimes are then separated from the sand and run into a large V-shaped settling tank 40 ft. long, 10 ft. wide at the top and 10 ft. deep, from which the slimes are fed to the third set of vanners located on the fifth floor below the bins. By this arrangement it is claimed that 90 per cent. of the values can be recovered by the one continuous operation. The mill and the entire length of the tunnel connecting with the 425 level of the Gould & Curry Mine are lighted by electricity and the ore is delivered to the mill in mine cars hauled by an electrically driven motor engine.

Much depends upon the working of the low-grade ore from the Gould & Curry Mine at the new mill. Should it be demonstrated after a continuous run of that mill that there is a reasonable profit from the ore, it will influence other companies on the Comstock to erect similar plants.

THE NITRATE COMBINATION.

The producers of nitrate of soda in Chile have formed a new combination, after much discussion as to the best means of improving the industry. This new agreement will be based on a restricted production, and it is intimated that during the first year, at least, the output will be between 30,000,000 and 30,500,000 qtls. The production in 1900 is estimated at 32,000,000, while in 1899 it amounted to 30,759,775 qtls., showing an increase of 1,240,225 qtls., or 3.9 per cent. in the present year. The world's consumption in the 9 months ending September 30th, 1900, is estimated at 25,079,260 qtls., which compares with 26,140,000 qtls. in the corresponding period in 1899; a decrease of 1,160,740 qtls., or 4.4 per cent., in 1900. This decreased consumption is offset by the higher prices ruling in the present year, and it is intimated that still higher prices will rule later on. A conservative estimate places next year's exports to all countries at 28,000,000 qtls., though it is believed this will be exceeded.

The last compact formed by the producers was in 1891, which terminated in three years, owing to dissatisfaction as to allotments of the output.

The present combination has the support of the Chilean government. In 1900, according to estimate, the expenses of the Association for the Promotion of the Use of Nitrate Soda will amount to $187,100, toward which the Chilean Government will contribute $100,000.

COAL AND IRON IN THE BRITISH PARLIAMENT.—The London "Colliery Guardian" says that of the 670 members who comprise the new House of Commons, 17 are colliery proprietors or coal merchants, 18 are ironmasters or metal merchants, 18 are connected with the shipping trades, while there are 4 civil and mining engineers, and 6 railway contractors and engineers.

NEW PETROLEUM FIELDS IN RUSSIA.—The exploitation of the Petchora oil fields in the Northern Oural is about to be realized. Trial borings have already been made, and the samples of crude oil obtained were pronounced of very good quality and specially suitable for liquid fuel purposes. The business has now been taken up by Messrs. Rjevin & Schardmoff, who have already set aside a large sum of money for the purpose of carrying on the trial borings.

NEW RAILROADS IN THE CAUCASUS.—The Russian Ministry of Communications is making arrangements to build some important lines in the Caucasus. One of these lines will connect the port of Novorossisk with the present Transcaucasian road and with Tiflis. It will be 682 versts—454 miles—long, and will open up some important mineral deposits, including the Tkvartchelsk coal-field. A branch line 55 versts—37 miles—long is to be built to reach the mines of Sadonsk and the important metallurgical works at Alaghir.

CONCENTRATING ANTIMONY ORES.—We are informed that tests of the Elmore oil concentrating process recently made on gold-bearing antimony ores have recently been made with very successful results. It is well known that antimony sulphide ores are very difficult material for concentration by ordinary methods, and that the treatment of such minerals carrying gold in Nova Scotia, Australia, Portugal and Austria has been wasteful and unsatisfactory.

The Elmore process was described in the "Engineering and Mining Journal" June 23d, 1900, page 742. It is in operation at Glasdir, in Wales.

DEPOSITING ZINC ON STEEL.—In a recent paper Prof. S. Cowper-Coles describes certain experiments, which were undertaken in order to determine the adhesiveness of zinc to steel, when deposited under varying conditions as regards preparation of the steel plates, acidity of the electrolyte, and current strength. It was found that perfect adhesion was only secured when the current was reversed for a few moments before commencing the deposition. In other cases the deposit was non-adhesive, a result ascribed to the slight film of oxide which covered the steel. Neutral solutions were found to yield the most regular and even deposits.

COKE PLANT AT A FRENCH COLLIERY*

The auxiliary works of the Vicoigne-Noeux Company include the washing floors, briquette factory, coke-ovens and works for recovering the by-products.

The washing floors, erected by Schuchtermann & Kremer, comprise grains and felspar washers, No. 1 being capable of dealing with 1,800 tons in 24 hours, while No. 2 can treat 2,400 tons in the same time. Large decantation tanks permit of clarifying the wash-water charged with slime, for use over and over again; and iron bridges connect the top of the buildings with the tip that receives the shale from the operation of washing. As it was found necessary to raise the height of this tip, an incline was established on which the shale trucks are moved by endless rope, driven by an electric motor at the ground level; and the trucks are hitched on to the rope by a special clip, tightened by hand but released automatically on arrival.

Coke Ovens.—The first bank, put up in 1882, comprises 56 Coppee ovens, the charge of which is 6.2 tons of washed coal, while the operation lasts 48 hours. The second comprises 20 Bernard and 20 Collin ovens, which latter are provided with valves to permit working with or without by-products recovery; and, while the charge of these ovens is also 6,2 tons, the operation only lasts 36 hours. The waste gases fire 3 Belleville boilers of 132 to 166 square meters heating surface, and also 7 water-tube boilers, each of 75 square meters heating surface. In 1897 a further bank of coke ovens was built near the recovery works, now comprising 60 Collin ovens, receiving a charge of 6.7 tons. These last-named ovens are served by a mechanical preparation plant, comprising a tipple, an appliance for mixing four different classes of coal, a bucket-chain and a Kreiss conveyer for distributing the coal to the draining towers; and the whole plant got out for 120 ovens is driven by electric current. Between the first and second banks of ovens there are Carr disintegrators, together with coke-breakers; and the 156 ovens already built turn out 400 tons of coke per 24 hours.

By-product Recovery.—The recovery works already put up can treat the gases of 80 ovens; but they are capable of extension. They comprise annular and tubular condensers, Beale extractors, Pelouze & Audouin scrubbers, ammonia and benzol standards, with the necessary steam engines; and there are departments for concentrating the ammoniacal liquor, making sulphate of ammonia, the production of benzol, and the regeneration of heavy oils, with laboratory for treating the products of 140 ovens. At present the recovery works treating the gases of 80 ovens are capable of yielding per 24 hours 6 tons of tar, 1½ tons of raw 50 per cent. benzol, and 4½ tons of ammoniacal liquor concentrated to 16 per cent., or 3 tons of ammonia sulphate.

The Briquette Works, containing 2 Bietrix presses, with their accessories—bucket-chains, grinder-mixer, creepers and ovens for heating the mixture of coal and pitch, the proportion of the latter varying from 7 to 8 per cent.—can turn out 400 tons of briquettes in 24 hours.

NEW BLAST FURNACES IN RUSSIA.—A third blast furnace has lately been completed at the works of the Societe des Hauts-Fourneaux de Toula, in Central Russia. The furnace has a capacity of 140 tons of pig iron per day. It is equipped with four Cowper stoves, 7 m. diameter, and a 400-H. P. blowing engine.

*Abstract from article in the London "Colliery Guardian."

NOTES FROM THE ATLIN DISTRICT, BRITISH COLUMBIA.

Written for the Engineering and Mining Journal by W. M. Brook.

Your correspondent left Atlin September 4th, or at least one month before the close of the mining season. Judging from the average clean-ups on the various creeks and benches since May 1st, I estimate the production of gold from the Atlin Lake Division of the Cassiar Mining District at $750,000 for the year 1900.

It will require two more years for the hydraulic companies to get their plants working to their greatest capacity, including the construction of several miles of flumes and ditches. We have had experienced dredging men visit our camp, and the general opinion from them is that mining by this method can be successfully carried on in a number of places.

The Lieutenant Governor-in-Council at Victoria had granted up to August 3d 420 concessions to hydraulic and dredging companies in Atlin, covering an area of over 20,000 acres. The White Pass & Yukon Railroad is giving the miners reduced rates on all kinds of machinery. While the lakes are open for navigation, the schedule is $65 per ton from Seattle to Atlin.

Since my communication which appeared in the "Engineering and Mining Journal" of September 15th, I have made further investigation of the Imperial Group of claims on Monroe Mountain, under bond to Lord Ernest Hamilton and others, better known as the Nimrod Syndicate. I find that this company has not closed a deal for the property yet, and that the value of the ore, according to the assays on 280 tons crushed, was over-estimated to me in the first instance; it runs $10 per ton in gold. The Engineers' Group on Taku Arm is having extensive development work done on it this fall.

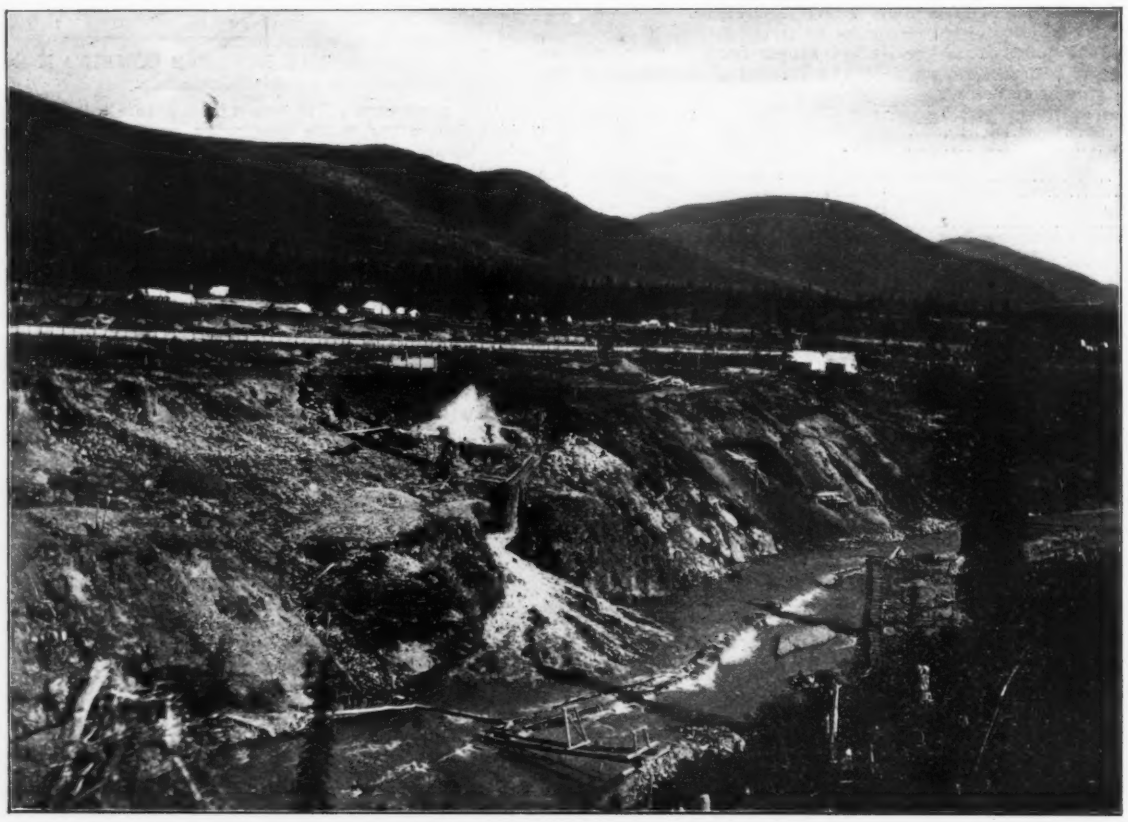


FIG. 1.—HYDRAULICKING ON PINE CREEK, ATLIN, BRITISH COLUMBIA.

The accompanying photographs were taken August 26th in the Atlin country.

No. 1 is a view of a 6-in. monitor piping on Nugget Point benches on Pine Creek; it belongs to the Sunrise Hydraulic Company, L. H. Griffith, manager. F. T. Blunck, Davenport, Iowa, has furnished most of the capital to operate the company mentioned. The Clifford Flume is just above the pipe line; it supplied the Willow Creek miners with water at $5 per sluice head for every 10 hours. On Pine Creek, 200 ft. above the dump of bed-rock flume, the entrance to two tunnels is partly visible. They are on the rich Yellow Jacket quartz ledge, owned by Dr. Runnals and Mr. Wise of Skagway.

No. 2 shows a Chinese wheel at work pumping water to enable miners to shovel pay gravel from bed-rock. It gives also a view of Pine Creek looking across toward the junction of the Stevendyke, a former channel of Spruce Creek.

No. 3 is an illustration of the immense pay-streak on Spruce Creek taken opposite claim No. 90 below discovery, on north side benches. The dark strata, as shown, represent a deposit of yellow gravel, 18 ft. thick, which runs from $3 to $7 per cubic yard in coarse gold. W. F. Robertson, Provincial mineralogist, is sitting to the right in this view, and your correspondent is standing by his side.

RAILROAD EQUIPMENT IN THE UNITED STATES.—According to "Poor's Manual" the number of locomotives owned or operated by the railroad companies in the United States during 1899 amounted to 37,245; the number of passenger cars to 26,184; the number of baggage, mail and other cars to 8,121; and the number of freight cars to 1,328,084.

UTILIZING BLAST-FURNACE SLAG AS A FERTILIZER.*

By Alexander D. Elbers.

In seeing blast-furnace slag recommended for fertilizing purposes, the average reader is apt to gain at first the impression that something like basic Bessemer steel slag is meant, which is greatly in demand as a fertilizer for its contents of phosphate of lime. But this essay does not discuss the merits of phosphates, nor of other high-grade manures, such as potash and nitrogenous compounds. It simply treats of the practicability of using highly calcareous slag for agricultural purposes in place of ordinary lime, chalk and marls. How important these latter substances are to the farmer is well known. As a rule it does not matter so much whether the lime is applied in its caustic state, or as carbonate, as that it should be in a suitable physical condition for admixture to the soil. Thus easily friable chalk is preferable to hardened lumps and slaked lime, because it breaks up more finely; and for the same reason it is preferable to ground limestone, the particles of which are very dense, and, therefore, not as readily soluble. The quantitative requirements are, however, usually calculated on the basis of the contained calcium oxide, or of the quicklime. As to sulphate of lime or land plaster, its application is comparatively restricted, its total annual consumption amounting, probably, to no more than 100,000 tons, whereas the consumption of lime, chalk and marls exceeds 1,000,000 tons, and at that is still in its infancy. The consumption of lime for agricultural purposes will increase enormously within a decade or two, unless some substitute is found for it.

Though lime is cheap by weight, it costs a good deal to the farmer to put into the ground from half a ton to three tons per acre every five or six years, if not oftener; and with a largely increasing demand the price will, of course, advance. Hence, the question of reducing the cost of liming the soil is very important to the agriculturalist; and if blast-furnace slag will do that, then this question is also of great importance to those who make it and do not know what to do with it.

The writer called attention to this matter in the "Engineering and Mining Journal" of April 28th, 1894, in an article on the "Economic Uses of Blast-Furnace Slag," in the following words: "The problem of discovering economic uses for blast-furnace slag, the by-product of pig iron, has, of course, occupied the mind of many an inventor. One of the oldest—and perhaps the most fitting—of the suggestions that have been made, is to utilize slag as manure. Of this suggestion a noted English metallurgist said about 10 years ago: 'One might as well use bottle glass and expect to improve the land.' As regards acid slags, which constitute the smaller portion of the total output, this assertion has at least the semblance of truth; but it is absolutely incorrect as regards the properties of basic slags, using that term for all compositions the silicate constitution of which is below the sesqui—or 1½:1 oxygen-ratio, whereas that of bottle glass is as 5:1, or thereabout. The healthy growth of grasses, grains and many vegetables depends largely on a liberal supply of soluble silica, which the ordinary agricultural land does not yield as readily as desirable unless it is unexceptionally high in alkalies."

In order to render this statement more intelligible it will be necessary to discuss at some length the relative functions of lime and silica as constituents of the soil.

The plants only take up silica that is in aqueous solution, and the soluble silica of the soil is chiefly derived from the gradual decomposition of those natural silicates that are reacted upon by the acids of the humus, including carbonic acid. These reactions yield gelatinous silica, which is about 10 times less soluble than lime. Hence, it may be assumed that about 10 times as much of dissolved lime as of dissolved silica is lost to the fields by being washed out by rain and by percolating into the subsoil; and this accounts for it to some extent that the lime has always to be replenished in much larger quantities than the plants can absorb. On the other hand, the gelatinous silica that has not become dissolved, dries up and becomes again insoluble. It is then amorphous silica, and it is to be supposed that a good deal of that accumulates in uncultivated soil. Amorphous silica yields, however, gelatinous silica to aqueous solutions of alkalies and to dissolving lime; hence it becomes again available for yielding to the plants what they require of it when the soil is manured with caustic lime or with alkalies. Its stored-up supply is, however, apt to become exhausted in the course of time unless the soil is rich in easily soluble silicates, which is not usually the case; and then blast-furnace slag comes handy for its contents of soluble silica.

It has been estimated that a crop of 25 bushels of wheat absorbs or removes from an acre of soil about 13 lbs. of lime and 119 lbs. of silica; and a crop of 20 tons of turnips absorbs about 30 lbs. of lime and 248 lbs. of silica. The lime is renewed at the rate of from 200 to 600 lbs. to the acre per year, whereas silicious materials are seldom—if ever—added to the soil for the purpose of replenishing the silica that the plants absorb, excepting that clayey soils are sometimes calcined, and even that is chiefly done for the purpose of rendering the soil lighter. Experiment and comparison will show whether a soil will respond profitably to the use of slag as proposed.

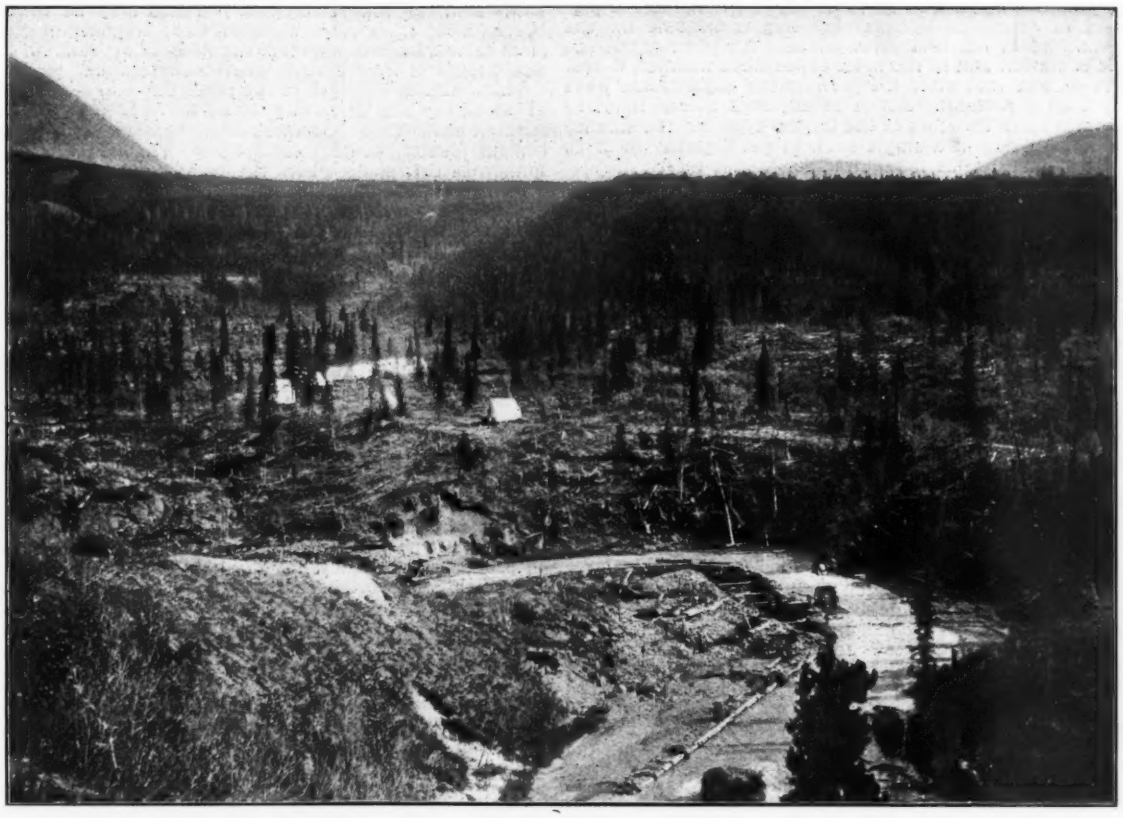


FIG. 2.—VIEW ON PINE CREEK, ATLIN DISTRICT, BRITISH COLUMBIA.

It remains to be shown what kind of blast-furnace slag is suitable for manuring, and which is its most desirable physical condition. As to the latter point, it may be taken for granted that granulated slag and the slag meal made from it are not suitable, and that slag which has hardened on the dump and is then finely ground is not as desirable as slag that has become disintegrated by its own heat, just as ground limestone is not as desirable as soft chalk.

It is well known that subsilicate slag of the type known as slacking cinder has a tendency to fall to powder on cooling, which is a chemical change, inasmuch as it is principally due to the splitting up of some of the constituent silicates of the slag. The pulverulent slag thus obtained sets like cement when it is gauged with water and is not suitable for manuring because it is apt to clog the soil just about as much as lean lime does that has acquired hydraulic properties in the burning. Besides, its composition is, usually, not of a desirable kind. It is also known that blast-furnace slag of ordinary composition and of subsilicate to singulo-silicate constitution hardens to a stone-like consistency when dumped on the cinder bank in the usual manner, but that it can be made to disintegrate into a more or less pulverulent mass by flushing it into a ditch or pit in sufficiently large volume—say 20 to 30 tons—to make it cool very gradually. This is, chiefly, a physical change, brought about by the sulphides of the slag, which have a tendency to segregate from the silicates of the mass when the latter cools so slowly as to pass gradually from the liquid to the solid state. Such pulverulent slag

* Abstract of paper in the "American Manufacturer."

does not clog the soil when it is mixed with it; it is more soluble than hardened slag of the same kind because it is less dense, and hence also more suitable for manuring. As to composition, slag that is high in calcia, low in magnesia, nearly free from oxides of iron and manganese, and with an oxygen-ratio of from 0.67:1 to about 1:1, may be designated as the most desirable, as well for the proposed treatment as for the intended utilization. As to the contents of calcium sulphide—which render such slag absolutely unfit for most of the uses to which it is put in its crude state—they cannot injure the soil when introduced in such comparatively small quantities as the slag carries with it, inasmuch as by weathering they will readily become oxidized to sulphate or land plaster, which is always beneficial when introduced in small quantities.

Finally, something should be said about tests for solubility: When samples, taken out of the fresh tapped slag with an iron bar, air-chilled and then pulverized, are readily soluble in normal solutions of the strong acids, then such slag is also sufficiently soluble for agricultural purposes when it is disintegrated by slow cooling. Another test, more illustrative of the acid reactions of the soil, would be the following: Roast some of the pulverized, air-chilled slag until its sulphide of lime has become decomposed, dissolve out the residuary free lime, put from one-eighth to a quarter of an ounce of the leached mass into a 4 to 8-oz. bottle, and fill it with seltzer water. Add after 24 hours—and occasional shaking—a pinch of crystallized oxalic acid; and if the ensuing reaction indicates that the water was well saturated with carbonate of lime, then the same kind of slag will be suitable when it is disintegrated by slow cooling.

In thus presenting the subject of blast-furnace slag as manure, the writer has endeavored to bring out in a concise manner the essential points that will enable the agricultural chemist to judge of the possible merits of the proposition, as well as those that will enable the pig-iron manufacturers to determine whether his slag is suitable for the intended utilization. As to the best arrangements for turning out the slag in a desirable condition and in the most expeditious manner, it will be time enough to discuss that after the preliminary experiments have been made and proved successful. But if at all, such a new industry will have to be carried on at furnaces of the largest type, for the smaller ones do not give enough slag at a single flush to get together 20 or 30 tons of it in as hot a condition as is required for proper treatment.

IRON AND STEEL EXPORTS OF GREAT BRITAIN.

The exports of iron and steel and their manufactures from Great Britain for the nine months ending September 30th, are valued as below by the Board of Trade returns:

	1899.	1900.	Increase.	Per ct.
Iron and steel	£19,907,210	£24,786,562	£4,879,352	24.5
Machinery	14,482,810	14,650,540	167,730	1.2
New ships	6,289,732	6,408,778	119,046	1.9
Totals	£40,679,752	£45,845,880	£5,166,128	12.7

The increase in iron and steel was more in values than in quantities. The new ships, counted as exported, include those built in Great Britain for foreign countries.

UNDERGROUND ELECTRIC RAILWAYS IN LONDON.

By Our Special Correspondent.

The success of the new Central London Railway, which runs at a deep level from the Bank underneath the great artery of traffic westward, has been so great and its popularity so well established that capitalists are turning their attention to other prospects of a like nature. Mr. Yerkes, of Chicago street railroad fame, has decided to carry out a scheme for building such a line from Charing Cross direct northward to Hampstead and Highgate. It is now quite a number of years since this line was first projected and Parliamentary powers were obtained, but owing to lack of knowledge with regard to electric traction, and also to want of enterprise, the scheme laid dormant until Mr. Yerkes came along. The northern suburbs have excellent train connections with the City of London; that is, the financial center around the Bank; but the means of transit to the West End and to Charing Cross and Westminster are simply wretched, consisting solely of the oldest and slowest of omnibuses. The electric line will encounter some pretty steep gradients, as the northern part of London is hilly, but there is no reason why the line should not prove a profitable investment if the management is up to date and lively. It may be of interest to mention here that the electric underground line from Waterloo Station, via Charing Cross and Piccadilly Circus to Baker Street, is progressing satisfactorily, and should be ready shortly. The railway is being built by the London & Globe Finance Corporation, otherwise Mr. Whittaker Wright, so that these three electric underground railways will all be due to the enterprise of Americans. The other railway of the same sort, the City & South London, is the oldest of the series, and its service and lines are being continually extended.

THE LARAMIE CEMENT PLASTER INDUSTRY.*

By E. E. Slosson and R. B. Moudy.

There are a large number of gypsum deposits in Wyoming varying in composition from pure crystal to gypsite powder. At Red Buttes, since 1889, plaster of Paris and stucco of fine quality have been manufactured, and since 1897 the Consolidated Company has been putting on the market plaster made from the ground gypsum rock. Some tests made on the product of this plant are included in this bulletin and further attention will be paid to it when the gypsum deposits of the State are studied.

The Laramie cement plaster is made from a deposit of gypsite just south of Laramie. This bed covers about 180 acres and has been worked by the Standard Cement Plaster Company since 1896. Their annual output is now about 2,500 tons.

The Triassic formation, or "red beds" as it is commonly called, which is exposed all along the eastern side of the Laramie Plains, contains a great deal of gypsum and one stratum of considerable thickness near the bottom of the formation and only a little above the sandstone and limestone of the Permian and Carboniferous. This bed was struck in the University artesian well at a depth of 595 ft. and the Permian sandstone at about 800 ft. The Red Buttes gypsum rock is found in this formation and doubtless the gypsum outcrop could be found at almost any point along the eastern side of the Laramie Plains within a half mile of the limestone and sandstone exposures which form the western slope of the Laramie Mountains. The silica and limestone washed down from these exposures have mixed with the disintegrated gypsum of the Triassic beds, and have been deposited in depressions of the plains, forming numerous beds of gypsite or gypsum earth. These deposits can often be detected by the whiteness of the soil and the peculiar vegetation, which consists of clumps of grease-wood, such as grows on the alkali flats.

The Laramie gypsite bed has an average depth of about 9 ft. From a few inches below the surface to about 7 ft. it is pure gypsite powder, then comes a red layer of 5 in., and below this a foot or more of the white gypsite powder resting on gravel and red clay. The plaster material is as fine as flour, requiring no grinding or even sifting. It is plowed, harrowed and scraped up, calcined and loaded on the cars.

A number of tests of this cement plaster gave, as shown by tables in the report, indications of excellent quality. An analysis showed as follows: Water, 9.93; insoluble residue (silica), 5.50; alumina, Al_2O_3, 0.59; lime, CaO, 37.11; magnesia, MgO, 1.45; sulphuric acid, SO_3, 43.37; carbonic acid, by difference, 5.05. These may be combined as follows: Water, 6.93; silica, 5.50; alumina, 0.59; magnesium carbonate, 3.04; calcium carbonate, 7.86; calcium sulphate, 73.73; calcium oxide, 2.35. There was a trace of iron, but too small to determine.

The crushing strength of the three kinds of cement as marketed, with about same time of setting, is as follows: Red Buttes cement plaster, without sand, 5,200; Laramie cement plaster, without sand, 4,065; agatite cement plaster, without sand, 3,550. The Red Buttes plaster contained numerous soft spots where the plaster did not set, owing to imperfect burning. These were not found in the Laramie and agatite plasters.

Since plaster is often mixed by bulk instead of weight, it was necessary to determine the relation between the weights and measures, and the figures may be of use to others. Although the individual particles of plaster are heavier than water, yet a bushel weighs 64 lbs., or 95 per cent. as much as a bushel of water. A block of the cement plaster after it is set and dry, containing 50 parts sand per 100 parts of plaster, has a specific gravity of 1.5 compared with water. A cubic foot weighs 93.5 lbs. The sand used had a specific gravity of 1.5 and a 10-quart bucket holds 29.5 lbs. of it.

*Abstract of Bulletin issued by the University of Wyoming.

CEMENT IN SOUTH AFRICA.

United States Consul-General J. G. Stowe writes from Cape Town, September 17th: "No country is a better customer for cement than South Africa. All public buildings, warehouses, stores and residences are built of brick, cemented on the outside. No wood, or frame, houses are seen. The expert Malays, the masons in this country, are adepts in producing very pleasing effects with cement in the outside finish of buildings. The bricks used in South Africa are two-sevenths larger than the American bricks and are laid up principally with 'mud,' the inferior clay found here, instead of mortar (lime) or cement. Over the whole surface, cement is laid. Bricks of different shapes form the window sills, caps, columns, pilasters, moldings, etc., and over these is spread the cement, forming a very pleasing exterior, the natural stone being closely imitated. Many of the large buildings are spattered with the cement, presenting a rough exterior very striking, and even durable. I know of no cities that have more handsome and unique building exteriors than the cities of this colony. Cement is also used in making drainpipes, sidewalks, stoops, tiles, chimney pots or tops. Brick exteriors are never seen, as the bricks are inferior, the best qualities being made of clay and coal cinders.

"Of the cement imports for 1899, amounting to 126,672,875 lbs., Belgium furnished 18,423,628 lbs.; Germany, 7,448,395 lbs.; other countries, 605 lbs.; and the United Kingdom the balance. During 1900, the imports of cement from Germany have been increasing rapidly, as it has been found that German cement is equally as good as English Portland and can be bought at 24c. per barrel cheaper. Belgian cement is good and sells 36c. cheaper than the English.

"When I left the United States, our manufacturers of cement were producing an article which was proved by tests to be as good as the English, and that cement ought to find a large market here. While the United States, at the present time, would be hampered on account of the excessive steamship rates to this country, which would prevent competition with the German and Belgian cements, yet I am convinced, with equal rates, the United States cement could find a market here in large quantities. Cement of the desired quality will never be manufactured here, as the ingredients do not exist."

NEW USE OF LIQUID AIR.—United States Consul-General Guenther writes from Frankfort, Germany, August 9th, 1900, that Mr. Carl Linde, who is giving special attention to machines for producing liquid air, describes, in the "Journal" of the Association of German Engineers, a furnace designed by Mr. Hempel for an ingenious application of this substance. The furnace is intended to burn low-class fuels, such as lignite and peat. The combustion is intensified by turning the gaseous mixture obtained by evaporating liquid air on the fire. Nitrogen is first set free, after which there remains a gas containing at least 50 per cent. of oxygen. The price of this gaseous mixture is said not to exceed 81c. for 1,000 cubic feet.

THE CANADA CORUNDUM MINES.

Written for the Engineering and Mining Journal.

In compliance with your request I send you some notes on the development of the corundum in this part of the country. There is now much of interest to report, for definite results have been attained.

On April 1st Mr. R. T. Hodgson, assisted by Mr. L. S. Ropes (formerly of Franklin, N. C.) commenced work on the plans and development of the deposits of the Canada Corundum Company, Limited. The mines of this company are in Raglan township, Renfrew County, Ont., 15 miles by boat from the Canada Atlantic Railway, and are especially well located for economical mining, milling and transporting of the finished product.

Robillard's Hill is a ridge of eruptive rocks rising to a height of 560 ft. above the waters of the York River and extending for about four miles in a nearly east and west direction. Along the steep southern face of this hill are situated the now quite well-known corundum deposits. At 100 ft. up the hill a graded road has been constructed leading to the mill ½ mile distant. Above this road grade are the heaviest outcrops, rising for nearly 300 ft. and extending for several thousand feet along the face of the hill. The ore is here mined, or, properly speaking, quarried, and loaded directly into the wagons for the mill.

So far the mining has been done by hand, the rock drilling well and breaking freely. From the quarry the rock goes to a Gates crusher and thence through the concentrating and rewashing processes, these being followed by drying and grading. A conservative policy was, at the start, adopted by the company and a small plant erected to determine the best method of separating their ore from the feldspar in which it occurs. The result of this experimental work is the arrangement of a scheme of working which produces a high-grade concentrate, beyond the anticipations of those in charge and, what is perhaps more substantial, the production of several car-loads of clean corundum. This latter is now being prepared for the market by the graders which have just been installed.

Considerable delay was experienced in getting the graders in on account of the work of extending the mill to receive new machinery, and of rearranging some of the machines to accommodate the additions As soon as the first shipments have been completed a shut-down of a week or 10 days will be made to facilitate the installment of the washing machines, after which the mill will be started with a capacity of 50 tons of rock per day as a minimum.

The power for operating the mill, dynamo and magnetic separator is obtained from a small stream, flowing through the property and having its source in a series of lakes, to the west and northwest. Two dams control the flow of these lakes and give an abundant supply for power and washing purposes. This power can be developed to give the mill its full ultimate capacity, 300 tons per day.

The deposits here are often referred to as "low grade." This, while true as compared with the rich pockets of the North Carolina field, is in no sense true from a mining point of view. By comparison with the Carolina deposits the regularity of distribution of the mineral through the entire formation here in Ontario is in marked contrast to the very irregular and pockety nature of the former. That the run-of-mine will average over 10 per cent. and approximate 15 per cent., while bands are of frequent occurrence, showing even a higher per cent, has been fully demonstrated by the development work and mill run. Another and very marked contrast is the uniformity of the Canadian corundum. At all points along the deposits the corundum is of one quality, the only noticeable variation being in the size of the crystals.

There is now in stock at the quarry a supply of over 500 tons of ore, averaging 13 to 14 per cent. clean corundum. No work is at present being done there, owing to the scarcity of men, the mine crew having been transferred to the construction of the Meadow Dam Reservoir, in which will be stored 50,000,000 cu. ft. of water. When this work is completed the work of raising the Long Lake dam will be commenced and completed before winter.

With the erection of the large mill the ore will be trammed direct to the crusher and pass by gravity through the mill, which will be located at the foot of the hill below the mine. The handling of the ore will then be entirely by gravity from the working face, reducing the cost to a minimum.

Mr. B. A. C. Craig, the managing director, now gives much of his time personally to the work, while Mr. L. S. Ropes occupies the position of superintendent and Mr. A. B. Smith, of Toronto, that of accountant.

THE NEW KLONDIKE COKING FIELD, PENNSYLVANIA.

Written for the Engineering and Mining Journal by Wm. Gilbert Irwin.

One of the most important new coke regions lately developed in southwestern Pennsylvania through the unprecedented demand for this form of fuel is the New Klondike field located in southern Fayette County, at the southern end of the Connellsville coking field. The development of the New Klondike field has been most marvelous. Coal mines, coke ovens, railroads and towns have sprung into existence within the past few months and hundreds of men are employed.

FIG. 3.—PAY-STREAK ON SPRUCE CREEK. ATLIN DISTRICT, BRITISH COLUMBIA.

The New Klondike field is confined to four townships of Fayette County—German, Menallen, George's and South Union—all lying adjacent to each other, and all through this territory wheat fields have been ripped up by the steam shovel to make way for the coke ovens. This new coke field extends from the southern outcrop of the Connellsville seam proper, the regular 9-ft. vein of coking coal, near Smithfield in Fayette County southward to the West Virginia State line. The construction work on the plants of this new field is superior to the general run of plants in the Connellsville Region. The ovens are larger and have some special features in their construction that are intended to add to the quality of the product as well as to the life of an oven.

In the operation of drift, slope and shaft mines in this new field electricity will be more largely employed than at any other points in the coking fields of western Pennsylvania. In the mines, from the pit mouth to the tipple and from the tipple to the oven, the coal will be handled by electricity. Electric mining machines will be employed, electric motors will convey the product from the mines, electric hoists will be used to operate the shaft machinery and the larries will be drawn by motors instead of mules and dinkies. Every device possible for the economy of labor has been employed. Structural steel has almost supplanted wood in the construction of tipples and trestle work.

To-day there are over 4,000 ovens either completed or under construction in the New Klondike field, and of these fully one-fourth will be

making coke before the present year expires. Over 500 ovens are now being operated in this new field. Present plans are such that it is expected to erect 10,000 ovens in the New Klondike field in case the demand for coke continues. All the plants are so projected that the number of ovens can be increased. The available coal-field in this section is placed at 20,000 acres, and while this area is now covered there is an additional 20,000 which can be reached by the construction of additional plants.

Less than two years ago the coal lands of this new field were purchased for $150 per acre. To-day they could not be bought for $500 per acre, but even this is a moderate price when we remember that in the main Connellsville region coal lands have not for some years been obtainable for less than $800 to $1,000 per acre and that in some cases double that figure has been paid.

The coal in this new coking field is a little harder than the coal of the main Connellsville seam, which outcrops just north of Smithfield. It has a brighter and a finer appearance. The operators of the new field claim that their product will stand the test with the regular Connellsville coke. The coke has a good fiber and an excellent color. In the furnace it bears the weight of the charge well and in burning no trouble is experienced with black ends. While many of the ovens of this new field will supply furnaces operated by the same concerns which operate the coking plants, this is not exclusively the case, and the product of this new field will enter largely into competition with the regular Connellsville product and no doubt will be an important factor in determining future coke prices.

The opening of the mines of this new field has given a wonderful impetus to railroad development and while all of the roads intersecting the Connellsville region have branches to the new field it is now proposed to construct a Coke Belt Line which will take in the entire coke region of southwestern Pennsylvania. At many of the mines of the new field there are now great piles of coal close to the openings of the drift, slope or shafts and this surplus product is rapidly being shipped in its raw state or is being converted into coke at the ovens already completed.

ABSTRACTS OF OFFICIAL REPORTS.

Shawmut Oil Company.

The report of this company for the year ending September 30th, 1900, shows receipts of $310,471 from sales of oil and $32,357 from interest, rents, etc.; a total of $342,828. Operating expenses were $88,532; cost of drilling new wells, $49,358; new machinery, etc., $35,299; a total of $173,189, leaving a surplus of $169,639 for the year.

The policy of the management has been to continue drilling a sufficient number of wells to keep up the production and in this they have been successful, the daily average being approximately the same as when the company was organized. The majority of the wells being old producers, it is probable they will hold up closely to their present gauge through the coming winter, and it can then be determined as to the expediency of more aggressive policy involving the opening up of the company's undeveloped territory.

United States Oil Company.

This company's report for the year ending September 30th, 1900, shows that the receipts from sales of oil were $695,963; miscellaneous, $3,116; total, $699,079. Payments were, for working expenses, $160,218; new wells and other construction, $256,297; total, $416,515; leaving a balance of $282,564. From this dividends amounting to $275,000, or 11 per cent. on the stock, were paid, and the balance of $7,564 transferred to surplus. The balance sheet shows: Value of leaseholds, $2,480,154; oil on hand unsold, $19,425; cash and accounts receivable, $88,225; total assets, $2,587,802. The liabilities were: Capital stock, $2,500,000; notes and accounts payable, $87,802; total, $2,587,802.

The cost of the leaseholds held was increased by $13,655 for new leases bought during the year. From this was deducted this surplus of $7,564 as above, and $592 for a lease sold, leaving a net increase of $5,499 in this account. Since its organization in 1895 the company has paid $694,250 in dividends. The books show that on September 30th last the company's stock was distributed among 1,215 stockholders.

Montana Mining Company, Montana.

The report of this company for the half-year ending June 30th, 1900, gives the total receipts in sterling as follows: Bullion sold, £55,578; interest, rates, etc., £437; total, £56,015. Expenditures were: Mine and mill expenses, £44,452; London office, etc., £1,746; total, £46,198, leaving a balance of £9,817. There were 26,470 tons of ore taken out and worked in the mill, and 33,168 tons of tailings treated in the cyanide plant. The recovery from ore was 7,087 oz. gold and 28,697 oz. silver; from tailings, 4,706 oz. gold and 27,536 oz. silver; a total of 11,793 oz. gold and 56,233 oz. silver. The receipts and expenses for the half-year are reported as follows:

	Ore		Tailings		Totals.
	Total.	Per ton.	Total.	Per ton.	Amount.
Tons worked	26,470	.....	33,168	.....	59,638
Total receipts	$158,028	$5.97	$110,821	$3.34	$268,849
Working expenses	$108,551	$4.10	$39,051	$1.17	$147,602
Prospecting, etc.	55,808	2.11	.....	....	55,808
Redemption of cost of plant	.....	....	11,609	0.35	11,609
Total expenses	$164,359	$6.21	$50,660	$1.52	$215,019
Net or deficit	D. $6,331	$0.24	N. $60,161	$1.82	N. $53,830

The report says that the 60-stamp mill was in operation during the whole half-year, and 20 stamps of the 50-stamp mill for about three months. The tailings plant was in operation three months.

During the half-year developments have been in progress on the property bonded to the company, but they are not sufficiently advanced to enable the directors to form an opinion of its suitability or otherwise. Several other properties were offered to the company during the half-year, but none of them stood the test of a thorough examination.

The development of the mine during the half-year was spread over a large area and consisted of 3,464 ft. of shafts, cross-cuts, upraises and winzes, representing an expenditure of $52,031. As a set-off against this expenditure 26,470 tons of ore were extracted from the mine and sent to the mills, returning a profit. Although the south end of the mine is, and must be, the objective, developments were by no means confined to that part of the mine. The successive levels on the North Star Lode, the Empire and New Castletown veins were each exploited with varying success, but sufficient payable ore was discovered and extracted to keep the 60-stamp mill employed for the entire half-year, and a part of the 50-stamp mill for a portion of the first three months of the half-year.

Sierra Buttes Gold Mining Company, California.

This company owns several mines, the accounts of which are kept separately. As presented at the London office, the accounts of the Sierra Buttes Mine for the half-year ended June 30th show a profit for the six months of £3,166, and this, with the balance of £1,546 brought forward from last account, made a total of £4,712. Of this amount £3,000 has been transferred to the reserve fund, leaving £1,712 to be carried forward to next account. The mine produced 6,274 tons of ore during the half-year, and the same quantity was milled, yielding an average of $4.95 per ton. The cost of working per ton was $2.18, or 45c. less than the average cost of the previous six months, and left a profit of $2.77 per ton. There are considerable reserves of ore available for the mill, and the only thing feared is the effect of a hard winter on the flume conveying the water power to the mill. This flume is old, and the timbers might give way under the pressure of a heavy snow-storm. The directors have given intstructions that every effort be made to strengthen and protect the flume, so as to avoid, if possible, a stoppage of the mill. The principal prospecting work during the term was the extension eastward of the intermediate and 2d levels. The former was run for about 40 ft., through a vein averaging 4½ ft. wide, and worth from $3 to $3.50 per ton, when it came into old workings. The 2d level was extended about 75 ft. during the half-year through low-grade ore, and by the middle of August had been run a further 45 ft., mostly through fillings, but showing some improvement in value, the ore being estimated to be worth from $3.50 to $4 per ton. The directors having authorized the reopening of the 6th level, work thereon was started in July last; progress has been slow up to the present time owing to the badly caved condition of the tunnel near the mouth. It is anticipated that a considerable quantity of the low-grade ore known to have been left behind in this level in former years will prove to be of sufficient value to pay a small profit, now that the cost of working has been reduced to so low a figure.

The accounts of the Plumas Eureka Mine show a balance to the credit of profit and loss of £5,874; of this amount they have carried £5,000 to the reserve fund, leaving £874 to be carried forward. The net gain from the half-year, arising from sale of sulphurets, tributes, interests, etc., was £227. Owing to the tramways from the Seventy-six Mine having been damaged by a snow-slide early in March, the operations of the tributers were interrupted for many weeks while they made the necessary repairs. The receipts from the tributers were consquently less than in the previous six months. The accounts of the Whitlock Mine show that the balance of £1,250 standing to the credit of profit and loss in the last account has been increased during the half-year under review by £428, making a total credit on June 30th last of £1,678. The company's operations were stopped at the end of February, and the mine let on tribute. During the seven weeks that work was carried on by the company 1,703 tons of ore were extracted from the mine, and the gold bullion produced from the treatment of the same in the mill sold for $9,532, giving an average yield of $5.60 per ton, the relatively high yield being caused through the mill plates having been thoroughly cleaned up. The tributers commenced working in the Whitlock and Alabama Mines in March last, but as yet have met with very little success.

THE BLEICHERODE-SONDERSHAUSEN POTASSIUM SALT DEPOSIT.

Written for the Engineering and Mining Journal by E. C. Mackay-Heriot.

Between the Harz Mountains and the Thuringer Wald an extensive salt formation of the Stassfurt type has been proved by the deep borings of the Prussian State, by those of a private undertaking, and by the Gluck-Auf Mine at Sondershausen. Although the dimensions of the rock-salt deposit as regards length and breadth are not yet definitely known, those of the potassium deposit are more or less proved. The latter extends from Sollstedt to the east of Sondershausen and from Craja under the Hanilute how far is not yet known.

The Prussian State, which is at present sinking a shaft at Bleicherode, has obtained about 65 claims, and a private company 11 in this salt area. A claim is 2,189,000 square meters.

The country rock is Trias, new red sandstone and Lower Muschelkalk. The latter, which has been to a great extent eroded, is thus left in the form of a plateau, or where isolated from the main as mountains, the new red sandstone building up the lower land. Both the Muschelkalk and the new red sandstone have a dip of about 4°.

At the Lower Muschelkalk both the Upper and Lower Wellenkalk occur here. The former containing several layers of Schaumkalk, the latter being free from the same. The Upper Wellenkalk is fairly rich in fossils; encrinus, siliformis, myrophoria orbicularis and many others are frequent. Like the Muschelkalk the new red sandstone was supposed to be of marine origin, but it is now looked upon as a desert formation, animal life being very scarce in it. The new red sandstone is divided into three regions: The upper, middle and lower. The upper formation, otherwise known as the Röth, contains several layers of gypsum, dolomite and mergel, and a white sandstone with myophoria costata. The middle formation has, as a rule, much red sandstone of coarse structure. This sandstone is not good for building purposes. The lower new red sandstone is built up of alternate layers of fine-

grained sandstone and clay, with impregnations and veins of gypsum at intervals.

The Lower Trias, which is about 550 meters thick, is the direct hanging wall to the Upper Permian salt formation, and is concordant to the same.

The following is the geological succession of the strata of the Trias and Permian formations as found here:

Trias.....	Lower Muschelkalk...	Upper Wellenkalk.
		Lower Wellenkalk.
	New Red Sandstone...	Upper new red sandstone
		Middle new red sandstone.
		Lower new red sandstone.
Permian.....	Upper Permian.....	Younger rock salt.
		Anhydrit.
		Salzthon
		Potassium salts.
		Elder rock salt.
	Middle Permian.....	Stinkstein.
		Anhydrit.

The salt formation, which is about to be described, is one of the Stassfurt type, or, in other words, it is one of those formations which have not been dislocated, the Harz Mountains evidently preserving it from the eruptions of the Miocene era—also the deposition of strata is the same as that of the Stassfurt occurrence. This type of formation is not marked by the richness of its salts, although sylvinit and hartsalz may be met with on the edges of the potassium layer, and the reason is not difficult to find.

Most of the salts with a high percentage of potassium are of secondary origin and have been altered by the aid of water; thus they are often found in connection with clefts and upheavals where the strata have been broken open. However it is a question if these rich salts occur in pockets or layers, and if it will be worth the risk of exploiting them. From the above it will be easily understood why the Bleicherode-Sondershausen potassium deposit is chiefly composed of the primary salt carnallit which has here an average of about 15-20 per cent. KCl.

carnallit here resembles a red granite, otherwise its features may be found in any mineralogy. The thickness of the carnallit layer is variable. Beginning in the west near Sollstedt with about 5 meters, eastward toward Elende it widens out to 50 meters, declining again further eastward near Sondershausen to 11 meters. The percentage of chloride of potassium is also variable, but an average may be taken at about 20 per cent.

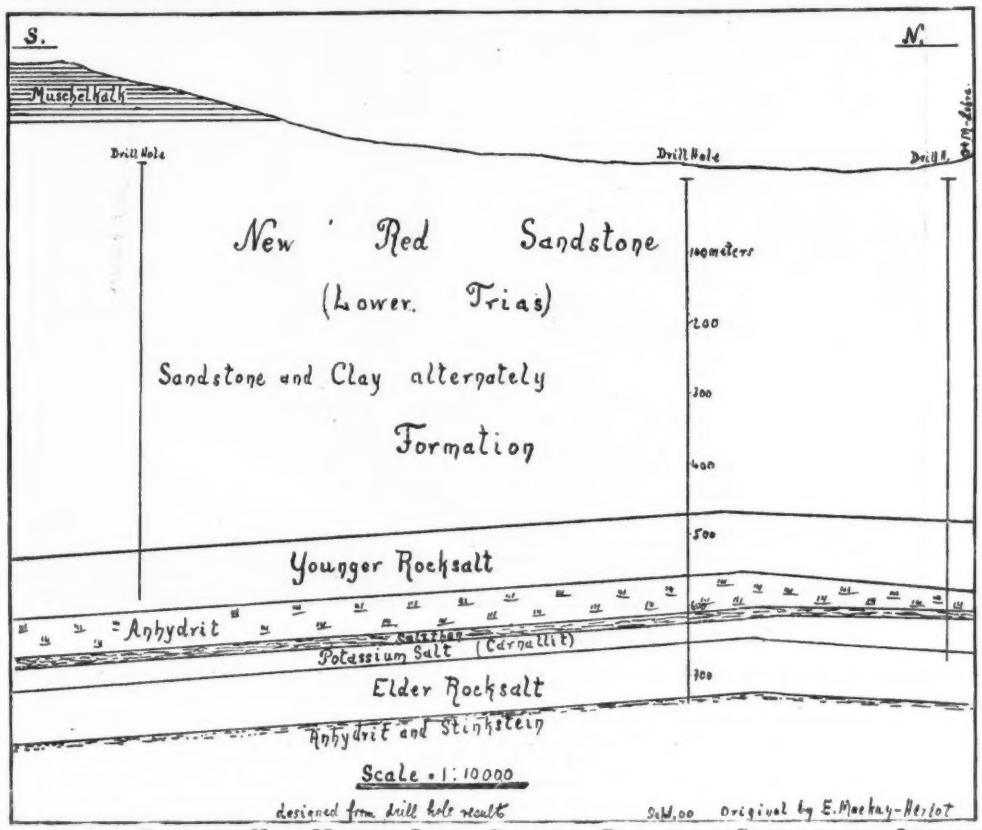
The Gluck-Auf Mine at Sondershausen (with one shaft) is at present putting these salts on the market, and during the year 1899 sold 8,261 metric tons of chloride of potassium with 80 per cent. KCl, 4,581 tons of hartsalz and silvinit, 2,876 tons of carnallit. In 1899 there were 500,000 marks paid in dividends as against 275,000 marks in 1898.

The shaft of the Prussian State at Bleicherode is about 300 meters down. The rocksalt will likely be struck at about 400 meters depth.

TIN SUPPLIES.*

The recent report of Sir Frank Swetenham, resident in the Malay Peninsula, on the tin mines of that region, refers to a falling off in production, in consequence of the scarcity of Chinese labor. For some unknown reason Chinamen have recently ceased to go to the Straits, and operations have not been active, though 8 new companies, with an aggregate capital of $1,500,000, were organized last year. It is now proposed to use dredges in working the streams and valleys for both gold and tin, and it is probable that some dredges will be brought from New Zealand for that purpose.

Progress is being made in the development of lode tin, in the district of Kuantan, in Pahang. The best payable veins cover about 10 square miles, but the whole of the concession of 100 square miles can be worked to advantage. These lodes run approximately east and west, are from 50 ft. to 2,000 ft. apart, and range in thickness from 2 ft. to 10 ft. They underlie both north and south, at angles ranging from 10° to 40° from



PROFILE OF SALT FORMATION NEAR MUNCHEN-LOHRE, GERMANY.—BLEICHERODE-SONDERSHAUSEN OCCURENE.

On account of the regularity of this occurrence one is enabled to calculate, or rather make a safe estimate of the amount of potassium salts by the aid of deep borings.

The younger rock salt, which varies in color, purity and structure, has a thickness of about 100 meters. It is as a rule light gray or has a pink coloring. A 2-meter layer of salzthon is found between the rock salt. The boundary between the latter and the new red sandstone is red clay with a 10-centimeter layer of gypsum.

Underlying the rock salt is a 20-40-meter compact layer of anhydrite. It has a marble-like structure and is bluish, or grayish, where partly altered to gypsum.

Following the anhydrite is a 10-20 m. layer of salzthon. which, as its name denotes, is a salty clay. When kept from the air this clay has a compact appearance, is tough and sometimes hard, but exposed to the atmosphere it crumbles to powder. The salzthon formation is an important feature in the life of a salt mine; for not only has this formation preserved the soluble potassium salts, but it can be used to make a shaft watertight. It is very important to be able to exactly locate the salzthon so that there will be no danger of breaking through it when mining. This is easy in the Stassfurt type on account of its regular occurrence.

The potassium salt layer is composed chiefly of carallit ($MgCl_2$, KCl, $6H_2O$), although near the boundaries of this layer secondary salts such as sylvin and sylvinit have been met with in deep borings. The

the vertical. The geology of the district is similar to that of parts of Cornwall, the granite, the basement rock, being much the same, and being also overlaid by varieties of clay schist, with the tin lodes running down right through the slate into the granite. At present some 2,500 tons of tin stone are being treated per month for a yield of 85 to 90 tons of tin oxide—an average yield of about 3½ per cent. The standard to which the oxide is dressed always exceeds 70 per cent. of metal, the impurities being oxide of iron, a little silica, and from 0.0625 to 0.125 per cent. of copper. When it is considered that lode tin-mining in the Malay Peninsula is only as yet (under European management) in its infancy, it is but natural to expect that the next ten years will show a marked increase in the present output of tin from this source. With the benefit of past experience future discoveries will doubtless be more rapidly developed and working expenses reduced to such an extent as to enable very low-grade ores to be profitably treated, and in bringing about these results the numerous waterfalls and quick-running streams found all over the Peninsula will, by providing cheap power, play an important part. Meantime, the increase of companies dealing with alluvial tin promises to have effects which will be satisfactory to the consumer.

There seems no ground for supposing that the minor producers of tin—Mexico, Bolivia, England, China and Japan—will do much to meet

*Abstract of article in London "Engineering."

the steadily growing demand for the metal. But Australia makes signs of waking up; Tasmania is the only colony which has made a steady advance in the last few years, and even Tasmania has much stanniferous ground not yet worked. But at least its main alluvial deposits are being developed consistently, and though its lode tin has been located, and its productiveness well ascertained, it is scarcely probable that general and adequate attention will begin to be paid to this branch until the stream tin has become too thin for profitable working. Queensland is one of the colonies which have not dealt fairly with either their tin or their copper deposits; but capital is coming forward to develop the Herberton District, concerning which the Government geologist says: "This field, which is by far the most important source of lode tin in Australia, is still in its infancy. Dykes of quartzose chlorite and quartzose serpentine—probably originally intruded among the porphyry as quartz diodites, or as rocks more or less of basaltic type, and subsequently metamorphosed—form the chief matrix of the tin ore in the porphyry country. The ore occurs in floor veins or pipes among the joint-planes of the dykes. The ore (bi-oxide of tin) is rarely crystalline, but occurs either in amorphous masses, almost chemically pure, or intermixed with the dyke rock. Sometimes, as in the Bradlaugh Mine, the ore is so finely disseminated through the matrix as not to be distinguishable by the naked eye."

Considerable quantities of tin have been obtained at different times at Mount Spurgeon, Port Douglas, and at Kangaroo Hills and Running Creek. Stream tin ore was worked on the latter field as far back as 1875. The discovery of steam and lode tin in Kangaroo Hills resulted from the impetus given to prospecting by the opening of Herberton. The Annan and Bloomfield tin-fields were opened up in the early eighties, but the only ore exported was stream tin, which was found in narrow gullies among tropical jungle. In the Mount Amos District several lodes or reefs of quartz, containing tin and other minerals, were opened up, but not worked to any great extent. Very extensive deposits of lode tin were found, too, at Lion's Den and Mount Leswell, but these also have been neglected for the old reason. Some of these places are remote, and not easily accessible.

The same cannot be said of New South Wales, which might do very much better than it has done up to the present time, and which is making an effort now to retrieve the neglect of the past. The stanniferous deposits which have been located are said to occupy an area of 5,500,000 acres, in addition to which, if we are to credit Professor David, there are other very extensive areas covered over by basalt, which will sooner or later be prospected and worked, and bring forth a large increase in the production of tin ore. The Professor's exhaustive surveys have convinced him that "numbers of deep channels or leads covered over by the basalt are still lying undisturbed." Lode tin occurs principally in the granite and stream tin under the basaltic country in the extreme north of the colony—at Tenterfield, Emmaville, Tingha, and in other districts of New England. The metal has also been discovered in the Barrier District, at Poolamacoa and Eriowie, near Bombala, in the Moharo District at Gundie, near Kempaey, at Jingellie, on the Upper Murray, at Doradora, on the Upper Murray, and in the valley of the Lachla. Although tin mining is now one of the settled industries of the country, and the supply is practically unlimited, the quantity raised depends almost entirely upon its price realized. It is not to be expected that the present very high prices will continue, but tin will certainly command a good price for years to come.

DISEASE IN COAL MINES.—A Belgian royal decree of August 7th last appoints committees for inquiring into the extent to which the miners in the collieries in the districts for which the committees are appointed have been troubled by ankylostomasia, and what practical prophylactic measures it is advisable to take against this malady.

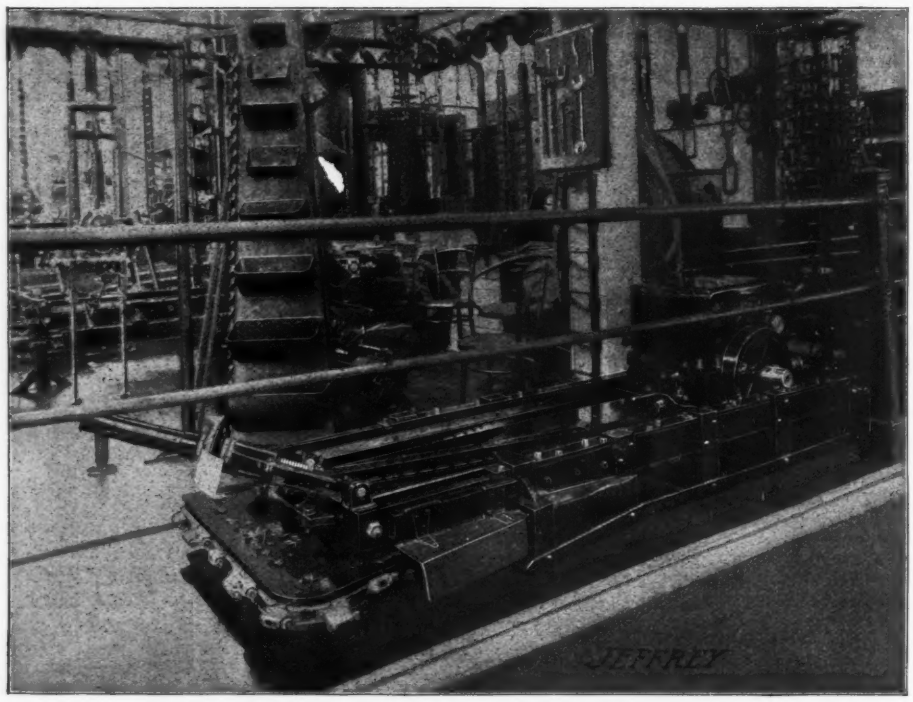
THE JEFFREY MANUFACTURING COMPANY'S EXHIBIT AT PARIS.

The accompanying photograph shows the exhibit made at the Paris Exposition by the Jeffrey Manufacturing Company, of Columbus, Ohio. This exhibit was located in the American Building at Vincennes, and attracted widespread attention for the reason that although the space allotted did not give an opportunity for adequate display, it gave some idea of the great diversity of coal mining machinery and elevating and conveying machinery manufactured by this company.

The exhibit included one of the 17-A electric chain mining machines, and current was carried right to the space, in order to allow the continuous running of this machine, which gives the unitiated a new idea of the ingenuity which has been displayed in designing machines for working underground in coal mines. There was also one of the 16-D air chain mining machines which was connected with compressed air pipes in the building, so that it could be operated.

These two machines are a novelty in Europe, for although efforts have been made by European engineers to design successful coal cutters, nothing as compact, powerful and efficient as these American machines had ever been seen in Europe, save in the mines where they had already been put to work by the Jersey Company. The company also showed electric and compressed air rotary coal drills, which attracted a great deal of attention. They, too, was arranged so that power could be attached.

About the space is arranged very artistically a fretwork of malleable and steel chains, which give the visitor an idea of the styles of chains used so extensively in this country for elevators and conveyors in factories, mills and mines of all kinds. French and German engineers, we understand, have been constantly expressing their astonishment at the great assortment of these chains and the ingenuity shown in designing them.



THE JEFFREY MANUFACTURING COMPANY'S EXHIBIT AT PARIS.

This exhibit covered also many different styles of elevator buckets, pan conveyors, screw conveyors, elevator boots, etc.

The Jeffrey Manufacturing Company was given three "grand prizes" by the Exposition authorities; these prizes covering coal mining machinery, elevating and conveying machinery. The company issued a very handsome catalogue covering the different lines, published in English, German and French, which was of special interest to European engineers who visited the exhibit.

The whole was in charge of Mr. S. B. Belden, who has been for a number of years connected with this company, in charge of its Pittsburg office.

BLAST FURNACES IN GREAT BRITAIN.—On September 30th there were 599 blast furnaces in Great Britain, a decrease of 7 since December 31st, 1899. The number in blast was 384, which compares with 401 at the opening of the year, and 410 on June 30th. There are now 5 new furnaces under construction and 30 undergoing repairs. Of the 215 reported idle, a number are old and will probably never be blown in again.

SULPHATE OF COPPER IN GREECE.—United States Vice-Consul Maximos of Patras, under date of September 12th, 1900, writes as follows: "Sulphate of copper will be largely used this year as a remedy against the disease peronosporos, which has lately caused so much damage to the currant and grape vineyards. The importation will exceed 5,000 tons. This article is imported from Great Britain and Belgium. In my opinion, a great part of the sulphate of copper could be imported from the United States, and many importers here have asked me for the names of reputable American firms connected with this trade. I am willing to furnish to our exporters any further information."

AN ENGLISH HAULAGE-ROPE CLIP.

The Middleton (patent) haulage-rope clip was devised to meet the requirements of underground haulage by endless ropes at the Middleton Collieries, near Leeds, says the London "Colliery Guardian." The roads being undulating, it was necessary that the clip should be capable of holding back on the down gradients as well as hauling up the inclines. The difficulties which, we are informed, were experienced prior to the introduction of the clip before us were chiefly: (1) Clips became disengaged principally while passing vertical rollers round curves; (2) difficulty of attachment, necessitating frequent stoppage of ropes; (3) ropes being split and strands torn out by clips gripping at sides. These difficulties are said to have been entirely overcome by the form of clip illustrated, the method of working of which may be understood by reference to Figs. 1 and 2. It will be noticed that the case which carries the hook for nanging on to the truck at the upper end, and a fixed jaw at the lower end, contains a movable sliding jaw to which movement is imparted by a toggle, the upper link of which is composed of a spring lever of special construction. When the lever is depressed, as in Fig. 2, the rope being between the jaws, the two halves of the spring lever are tightly compressed, and the center of the toggle having been, by the movement of the lever, carried across the center line of its extremities, the movable jaw is held down under great pressure and the rope gripped securely until the lever is again raised. It will be understood that, when hauling, the clip does not hang vertically, but at an angle, and the rope, being thus bent, tends to force itself out of the jaws at opposite corners. The advantage of having the jaws above and below the rope, and not at the sides, will thus be seen, and the saving effected in the wear and tear of ropes has been, we are informed, very marked. It should be added that the clip is so constructed that any worn or broken part can be readily replaced by spare parts, which are made on the interchangeable system.

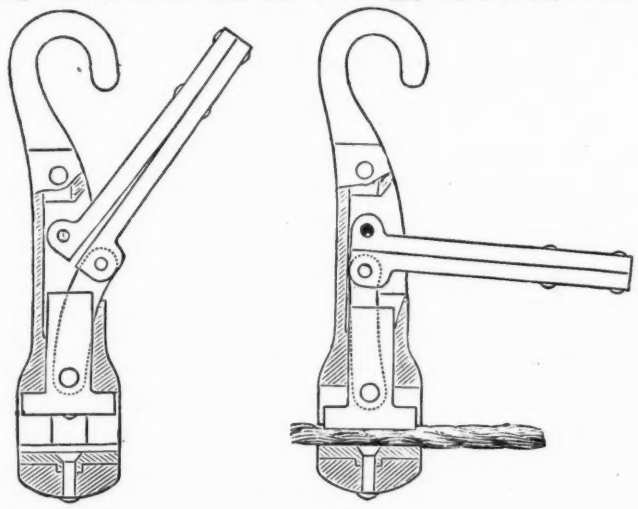


FIG. 1. FIG. 2.

HAULAGE CLIP FOR CABLE ROADS.

THE MINING INDUSTRIES OF SERVIA.

By Heinrich Rudolph Jastrow.

The recent endeavors of Servia to attract foreign money for increasing the wealth of the country through its mineral resources call attention to an interesting state of affairs in this branch of industry in that complex kingdom.

For some time past the Servian Government has been putting forth strenous efforts to secure capital for the development of the mining lands of the kingdom. Although the conditions under which concessions are offered by the Government are extremely favorable, yet the opening of mines is often so doubtful an undertaking that foreign capitalists have proved in general rather reluctant to avail themselves of the privilege proffered. The right of prospecting is open to all in Servia, but a tax of $2.50 is exacted for every 1,000,000 square yards of land examined. In addition, for every mine opened the lessee is called upon to pay the sum of $2.50 on every 100,000 sq. yds., besides paying over to the Government 1 per cent. of the net production. Under these conditions, the lessee may occupy the territory for a period of 50 years. After five years of continuous operation he is permitted to purchase the property and all its perquisites at a very moderate price, providing, of course, it belongs to the State. On the other hand, should the mining land be the property of private persons or communities with whom a compromise cannot be effected, the Government exercises the power, should it be to its interest, to dispossess the owners. All machinery and tools needed for the operation of mines are admitted, and all products of the mines may be exported, free of duty.

Thus far, in Servia, English and Belgian companies control the main interests in this line of industry, Servians having a singular antipathy for any form of mining, apparently caused by their indolence and general carelessness in matters requiring severe manual or executive labor.

The most important mining territory in Servia is located in the vicinity of Majdanpek, a district almost totally neglected previous to the commencement of the 19th century. The Majdanpek mines are 20 miles distant from Dolni-Milanowatz on the Danube, and are connected with that station by an excellent roadway. They are the property of the Servian Government, which first commenced their development and erected an iron foundry and comfortable dwellings for the miners and other employees. In the year 1858 the mines were leased to a French syndicate for a term of 10 years and then to an English company, under terms calling for a deposit of 3 per cent. of the selling price. According to the contract a certain amount of iron was to be produced annually. The company found it advisable to confine operations to this alone; the profits were, however, not sufficient, and the lease was terminated.

Notwithstanding this apparent failure it is claimed that the mines are well able to repay a rational working. The Majdanpek Mines contain iron and copper in considerable quantities. Furthermore they possess a plant consisting of two foundries with blast furnaces that cost the Government a large sum of money. Copper is said to exist in large quantities throughout the entire district, almost every passageway and shoot showing veins, some of which exceed in breadth more than 48 feet. Thus far, however, the annual production of copper has never exceeded 200 tons. The Majdanpek District comprises 57,000 acres, of which one-half is woodland.

Equally rich are the coal mines, which are as yet insufficiently developed. The coal mines of Dohra are situated along the Danube, midway between Gulwoatz and Dolni-Milanowatz. They consist of four deposits, of which two may be called easily accessible. The coal mined from them is of good quality, and ranging in weight between 165 and 167 lbs. to the hectoliter (2 5/6 bushels). Here also the Government is owner. A French company undertook the operation of the mines 20 years ago, but gave up the effort on account of lack of capital. There is also a deposit of coal in the Ptsernoretschi District, which the Government leased to a company in 1882 for a term of 50 years. The coal of this locality contains 92 per cent. coke.

In the category of remaining minerals to which Servia may lay claim, may be mentioned gold, silver, lead, antimony, iron, zinc, nickel, chrome and brownstone. Gold has been found to exist between silver veins, especially in Kutschajna, but the investigations are too recent to convey a definite idea of the richness of the deposits. Silver is found in connection with lead, arsenical pyrites, zinc and copper. Quicksilver ore has been discovered in quartz and in serpentine. Antimony ore of good quality is found, while zinc ore is plentiful. Chrome ore has been discovered in serpentine. A mine of chrome ore has long been operated by the Government, with, however, but poor results, although it is thought that success will in time attend the undertaking.

MISSOURI COAL MINES.

The advance statement of the coal production of Missouri, for which we are indebted to the courtesy of State Mine Inspector Charles Evans, gives the total output for the year ending June 30th, 1900, at slightly less than in the preceding year, a somewhat unexpected result. The figures of production and of the amounts received for the coal have been as follows for two years past:

	1899.	1900.	Changes.	Per ct.
Total coal mined, tons	3,191,811	2,995,022	D. 196,789	6.2
Total amount received for coal	$3,581,111	$3,643,975	I. $62,864	1.8
Average receipt per ton	$1.12	$1.21	I. $0.09	8.0

The decrease in tonnage mined in a year of great business activity is rather surprising. Most of the coal mined in Missouri is used within the State, and we are inclined to believe that the decrease is—at least in part—owing to the smaller consumption of the smelters in the zinc region. A number of the smelting works formerly operated in Joplin and the neighborhood have been removed to the natural gas belt across the Kansas line. This change has been sufficient to make a material change in coal consumption. The increase both in the total amount and the average price received for coal shows that the demand was good and that the decrease in coal mined was not the result of a lack of consumers.

The total number of mines operated during the year, including strippits or open workings, was 350, a net increase of 8 over the previous year; 12 new mines having been opened and 4 old ones abandoned. Of these mines, however, 212 were small, employing less than 10 men each, leaving only 138 classed as large mines. In these mines there were, in all, 61 ventilating fans in use, natural ventilation being relied on in many cases. The total quantity of powder used in blasting was 69,450 kegs; its cost to the miners was $138,536, so that the Missouri miner paid close to $2 per keg for his powder supply. There were 43.1 tons coal mined to each keg of powder used.

The number of men employed in the coal mines varies a good deal according to the season, chiefly on account of the number of small mines which are worked only when there is an immediate demand for the fuel. The number reported for two years past is as follows:

	1899.			1900.		
	Summer.	Winter.	Av'ge.	Summer.	Winter.	Av'ge.
Miners	5,393	7,195	6,294	5,300	7,055	6,178
Others	1,385	1,611	1,498	1,298	1,643	1,470
Total	6,778	8,806	7,792	6,598	8,698	7,648
Tons mined per miner	....	....	501	....	....	485
Tons mined per employee	....	....	410	....	....	392

The number of fatal accidents showed a decrease. The total number of accidents is given in the table below, the average being calculated upon the average between the summer and winter working forces:

	1899.	1900.	Changes.	Per ct.
Number of men killed	14	10	D. 4	28.6
Number of men injured	23	23	.....	....
Total casualties	37	33	D. 4	10.8
Number killed per 1,000	1.80	1.31	D. 0.49	27.2
Number injured per 1,000	2.95	3.01	I. 0.06	2.0
Totals	4.75	4.32	D. 0.43	9.1

The figures given in the report show that 299,502 tons of coal were mined for each life lost, and 130,218 tons for each non-fatal accident. The year's record shows an improvement in this respect.

Notwithstanding the small falling off in production, the Missouri coal mines were generally prosperous during the year, as the increased return to the operators shows.

MINERAL COLLECTORS' AND PROSPECTORS' COLUMN.

(We shall be pleased to receive specimens of ores and minerals, and to describe and classify them, as far as possible. We shall be pleased to receive descriptions of minerals and correspondence relating to them. Photographs of unusual specimens, crystals, nuggets and the like, will be reproduced whenever possible. Specimens should be of moderate size and should be sent prepaid. We cannot undertake to return them. If analyses are wanted we will turn specimens over to a competent assayer, should our correspondent instruct us to do so and send the necessary money.—Editor E. & M. J.)

224.—Supposed Talc; Mica.—The white powder is apparently kaolin. Talc has a smoother feel. Best American kaolin is worth $8 to $9 per ton at New York. The value of mica depends wholly on the size and clearness of the sheets. Scrap mica is worth at North Carolina mines about $25 per ton, while sheets 6 by 6 in. are worth $3 per pound.

225.—Graphite from Wyoming.—F. M. T.—The sample of amorphous graphite you send is of fair quality. It is not suited for the manufacture of lead pencils, but will answer for paint or for making crucibles. It might be worth $30 per ton at New York City. An assay such as you ask for, if made by responsible chemists in New York City, would cost $5 or $6.

228.—Obsidian.—F. W. M.—The piece of black rock has all the characteristics of obsidian, volcanic glass. It is of common occurrence in many parts of the West. The Yellowstone Park is a famous locality. It is of no commercial value.

QUESTIONS AND ANSWERS.

(Queries should relate to matters within our special province, such as mining, metallurgy, chemistry, geology, etc.; preference will be given to topics which seem to be of interest to others besides the inquirer. We cannot give professional advice, which should be obtained from a consulting expert. Nor can we give advice about mining companies or mining stock. Brief replies to questions will be welcomed from correspondents. While names will not be published, all inquirers must send their names and addresses. Preference will, of course, always be given to questions submitted by subscribers.—Editor E. & M. J.)

Strontianite.—Can you tell me if there is any market, and if so, what is the ruling price on strontianite—carbonate of strontium.—J. S. B.

Answer.—Strontianite is the ore or crude mineral from which most of the strontium salts are prepared. There is little or no market for it here, the preparation of those salts being carried on chiefly in England and Germany. We are informed that the German makers pay from $6 to $6.50 per 100 kgs. (220 lbs.) for strontianite delivered at their works.

Thorium and Cerium.—I have discovered thorium and cerium in a crystallized form, and I wish you would let me know where I can find a market for the same, and what the market price is for the same per unit, and any other information that may aid me in placing the same on the market.—P. L. P.

Answer.—The thorium and cerium salts are used in making incandescent mantles under the Welsbach and similar processes. They are found at present in monazite sand, the current price of which in New York is about 7c. a pound or $140 a short ton. Thorium nitrate is quoted at $4.75 a pound in a small way.

"Magnet Stone."—I am looking for a stone called "magnet stone" (not lodestone), supposed to be mined in Nevada; comes 1 in. thick, and varies from 10 by 10 to 10 by 20 in. in size, light in weight, very fine, porous, of dark gray steel color, and highly magnetic. Some time ago a professor in New York City gave a lecture on this stone. I would like to find out his name and where we could procure the stone.—R. F. S.

Answer.—We fear that you have confused matters, or have taken your description from some pseudo-scientific account or newspaper paragraph. We do not know of any "magnet stone," nor of any stone answering your description.

Bullock Quartz Mill.—I recently came across a reference to the Bullock quartz mill in some old papers; but I cannot find any description of it. Can you tell me anything about the mill? Are there any now in use?—Hamilton.

Answer.—The Bullock mill was a modified Chilean mill. It had an iron pan which was revolved slowly by gearing and two large grinding wheels carried on a shaft placed over the pan. The rollers revolved at a different rate of speed from the pan, so as to give a slipping or grinding motion. Except in details, it did not differ greatly from some other modified Chilean mills. It was made in New York, and about 1866-69 some of these mills were sent to Colorado, two or three to North Carolina and several to Georgia. Two or three were also sent to Central America. Probably not more than 20 to 25 had been made when the company failed. We do not believe that any are now in use, as none have been built since about 1870.

Uranium.—As we have found that uranium exists in the ore of our mine at Nelson, B. C., we would be pleased, through the medium of your valued "Journal," to get some information as to its commercial demand and as to where the best market is for the raw product. It occurs in our ore not in the form of pitchblende, as it is usually found, but in the form of a uranic oxide. A quantitative analysis made on an average sample of ore gave approximately 0.31 per cent. of uranium. In treating with a stamp mill and vanners it can be separated readily, being heavier than the black sands which also accompany the ore in the form of iron oxide.—V.

Answer.—The market for uranium is limited. Most of the ore mined in this country has been sold to French buyers. You will find some buyers of the ore advertising in our columns; such as Poullot & Voulleque, of Denver, Colo., and Stein & Boericke, of Primos, Pa.

Concentrating Silver-Lead Ores.—Will you please consider the following problem in concentration of silver-lead ores: The ore is galena, carrying gray copper, which, in turn, seems to carry the silver. The gangue matter is heavy spar, or barytes. Analysis shows the ore to run: Silver, 19 oz.; lead, 13.7 per cent.; silica, 43.9; barytes—$BaSO_4$—23.9. In order to effect separation from the barytes we have found it necessary to grind to 40 mesh. By doing this and cencentrating at the rate of 4.25 to 1, we save 99 per cent. of the lead, but the tailings assay 17.50 oz. silver. The gray copper and the barytes seem to pass off together. Our neighbors, who have quartz for gangue matter instead of barytes, have the same difficulty in attempting to save the silver.—W. P. K.

Answer.—The difficulty in your case seems to be one that can hardly be overcome in wet concentration. The specific gravity of gray copper or tetrahedrite, is from 4.4 to 5, while that of barytes is from 4.3 to 4.7. It is impossible to separate by gravity two substances the specific gravities of which are practically the same. The gray copper evidently carries the silver. To save the silver you will probably have to try some other plan of treating the tailings.

Working Gold Ores.—I send you by to-day's mail 2 pieces of gold-bearing rock. They are from same vein, which is of a uniform nature as far as opened. The ore from several samplings and assays shows $6.25 gold and 30c. silver per ton. Please "spot" the rock and tell me (the gold existing as free gold) whether such a value would be profitable to work if other conditions are good. Plenty of water 3 miles from railroad, good timber and plenty of it, vein 12 ft. to 28 ft. wide and outcrops persistently. If ore is put at mill for 50c. a ton can you tell me what the expense of putting it into marketable bullion would probably be per ton of ore? In other words—you have the rock before you—its assay value per ton and the cost of mining it—do you think, with efficient management, the ore is interesting?—C. H. T.

Answer.—The samples you send are apparently decomposed or oxidized surface ore. Assuming that they contain gold according to your assay, such ore might be very cheaply worked by crushing in the stamp mill and amalgamating. It is, however, entirely impossible to give directions as to milling or cost of working from a small sample. The conditions you give are all favorable to cheap working, and the deposit ought to be interesting; but it is never safe to give an opinion without full investigation of the conditions, and an examination of the mine or claim itself.

The Collins Process of Treating Ores.—Can you tell me anything about this new process, to which I have seen several references in Western papers lately.—A. H. H.

Answer.—Six patents have been granted recently to Caleb G. Collins for methods of treating ores; all have been assigned by the inventor to Calvin Amory Stevens, of New York. The first is No. 642,584, dated February 6th, 1900, and the specifications say, in part: "The essential feaure of this invention consists in treating the ore in reduced, comminuted or powdered form, mixed with either fluoride of calcium or fluoride of aluminium, sodium or barium, or with any combination of said fluorides, to moist heat and agitation simultaneously. . . . This method does not involve a process of fusion, the heat employed being so low that the dry powdered condition of the admixture is not changed nor are the component parts melted, the whole remaining simply a mechanical admixture in so far as the heating is concerned." This patent also covers the apparatus used. "A rotable iron cylinder lined with a refractory material, as fire-brick, and provided with longitudinal shelves internally to carry over and mix the material contained in the cylinder. In lieu of the said shelves any suitable or well-known means of agitating the mixture may be used."

In the specification of the second patent, which is No. 648,354, dated April 24th, 1900, the inventor says: "The object of this invention is to provide a simple and economical method of treating natural carbonates, hydrates, chlorides and sulphides of the metals, particularly those of copper, silver, nickel and cobalt, in such manner as to obtain the compounds of these metals in a highly concentrated form for subsequent treatment in any of the well-known ways suited to the particular compound or metal to be reduced to the metallic state. Primarily the invention consists in placing powdered ore in a solution of an ammonium salt and then decomposing the ammonium salt in the presence of ore by the addition to the solution of a powerful alkali. It also consists in treating unusually refractory ores by the addition to the solution of a hypochlorite of an alkali. Incidentally the invention includes the precipitation of the metal by the addition of an alkali-metal silicate."

The latest in the series are patents Nos. 659,338; 659,339 and 659,340, dated October 9th, 1900, in which is claimed the extraction of zinc and copper from their ores by the use of a solution of salt-cake and nitercake, in strength proportional to the contained copper and zinc.

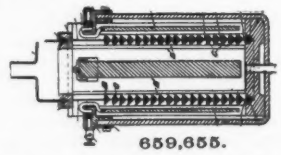
PATENTS RELATING TO MINING AND METALLURGY.

UNITED STATES.

The following is a list of the patents relating to mining and metallurgy and kindred subjects, issued by the United States Patent Office. A copy of the specifications of any of these will be mailed by the Scientific Publishing Company upon receipt of 25 cents.

Week Ending October 16th, 1900.

659,655. APPARATUS FOR THE ELECTROLYTIC DECOMPOSITION OF ALKALINE SALTS. Edwin Edser, London, England. An electric



659,655.

cell having a vertical partition formed of a series of troughs dividing said cell into decomposing and combining compartments, said troughs containing mercury which has its surface exposed to each

compartment, each of said troughs dipping below the level of the mercury in the trough below, and electrodes in said compartments.

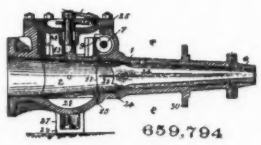
659,719. BLEACHING COMPOUND. Heinrich Wachter, Bielefeld, Germany. A new substance for bleaching, consisting in a solution of zinc in alkalies, to which potato-starch is added.

659,733. PROCESS OF MAKING OXALATES. Martin Goldschmidt, Charlottenburg, Germany. The process consists in first mixing a carbonate with a formate and then heating the mixture sufficiently to form monoxide of carbon and hydrogen, whereby the former combines with the carbonate to form the oxalate in a proportion nearly equal to the proportion of formate in the mixture.

659,745. CONVEYER FOR ROPEWAYS. Andrew S. Hallidie, San Francisco, Cal.; Martha E. Hallidie, executrix of said Andrew S. Hallidie, deceased. A rope or tramway carrier consisting of hangers engaging a cable, arms projecting approximately horizontal from said hangers, a pole extending between and adapted to be supported upon the arms of said hangers, slings by which the bundle is suspended from the pole during transportation, and means for disengaging the pole and burden at the point of discharge.

659,777. MINE CAR LATCH. Alfred C. Walters, Uniontown, Pa. A latch for mine cars, consisting of a keeper, formed from a plate and attached to the coupling-bar of the car, said keeper having a portion bent at a right angle and an inclined part, a latch-bar pivoted to the end-gate, adapted to engage with the keeper, and provided with a handle portion and a strap for guiding and holding the bar in position.

659,794. HYDRAULIC NOZZLE. William A. Doble, San Francisco, Cal. A main tube of tapering bore, a transverse circular chamber formed integral therewith adapted to receive a revoluble valve, the latter



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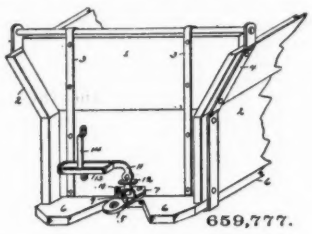


659,777.

chambered or out of contact at its sides and ends, provided with removable faces to fit upon and close the bore of the nozzle toward the discharge end thereof and adapted to receive a lubricant around its exterior.

659,805. HOT-BLAST VALVE. David Baker, Chicago, Ill. In combination with a valve-seat, a valve-body movable to and from the seat at right angles to the plane of the valve-seat and provided on opposite sides with valve-surfaces either adapted to rest on the seat, an operating stem extending at right angles to the plane of the valve seat and means for connecting the stem detachably with either side of the valve-body as desired.

659,813. ORE WASHER AND SEPARATOR. Ethan W. Eaton, Socorro, N. Mex. A tank having an overflow-opening and a lower discharge-opening, a water-supply vessel mounted on the tank and provided on its under side with pulp-stirring arms, and mechanism to rock the vessel and stir the pulp, part of said arms being hollow to convey water from the vessel to near the bottom of the tank and having their discnarge ends bent toward the concentrate-discharge end of the tank, and partitions extending from the top of the tank to a level below the overflow-opening.

659,820. PROCESS OF MAKING PERSULPHATE OF SODIUM. Auguste Lumiere and Louis Lumiere, Lyons, France. The preparation of persulphate of sodium by means of persulphate of barium, by treating this body in very concentrated solution by the sulphate of sodium, after a preliminary treatment by sulphuric acid; the solutions of persulphate of sodium thus formed being filtered and evaporated at a slightly-elevated temperature.

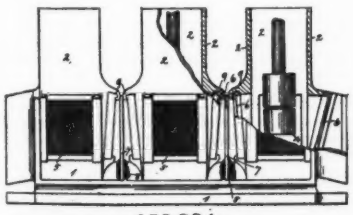
659,838. CONVEYER. John Q. Adams, Marseilles, Ill. The combination of two sections adjustable relative to each other to vary the horizontal angle between them, a shaft journaled in each end of each of said sections, a drag chain or belt in each section co-operating with universal-joint connections between said shafts for transmitting the power from one of said shafts to the other in any position of adjustment between said sections.

659,842. COMPOSITION FOR BLASTING POWDER. George Beneke, Southport, England. As an ingredient in the subsequent manufacture of nitrate exposives, the carbon carrier composed of resin, a chromium oxidizing agent and carbon, all incorporated coherently together.

659,850. MACHINE FOR ROLLING IRON. Thomas J. Jones, Chicago, Ill. The combination with a pair of rolls of large diameter journaled with their axes parallel with other, and having circumferential registering grooves, and guides extending between the rolls and fitting in said grooves, said guides having their working faces inwardly inclined from their receiving ends to a point in the plane of the axis of the rolls.

659,900. COKE-HANDLING APPARATUS. James R. Risherberger, Wooddale, Pa. The combination with a track and a carrier designed to move thereon, of a duplex traveller arranged in a plane above the track, hoisting mechanism supported by the traveller, and means for detachably connecting the hoisting mechanism to the carrier to lift said carriage to or from the track.

659,934. MORTAR FOR STAMP-BATTERIES. William A. Merralls, San Francisco, Cal. A mortar for a stamp-battery having a single



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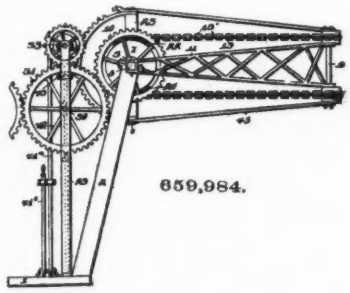


659,984.

metallic base and a plurality of chambers thereon for the stamps, each chamber having four individual walls cast integral with the base, and each chamber being formed with spaces for the reception of discharge-screens on three sides, each chamber having also formed upon it extensions from adjacent sides of the adjacent chambers, said extensions being sufficiently near each other to form a guide for the upper edge of a partition between adjacent side screens.

659,926. PROCESS OF MANUFACTURING ABRASIVE MATERIAL. Chas. B. Jacobs, East Orange, N. J., assignor by mesne assignments to the General Electro-Chemical Company, Jersey City, N. J. The process of making a crystalline abrasive from amorphous aluminum hydrate, consists in heating the hydrate to a state of quiet fusion in an electric furnace and allowing it to cool slowly into a solid mass of crystalline form and a degree of hardness which makes the material suitable as an abrasive.

659,941. METALLURGICAL FURNACE. William Swindell, Allegheny, Pa. The combination of a combustion chamber having a charging-opening in its wall, a door-frame formed of a body of refractory material and metallic facing-strips secured thereto, the whole connected removably to the wall of the combustion-chamber around the charging-opening, and a door fitted to traverse in the door-frame and control the charging-opening.

659,984. MINING MACHINE. Edward O'Toole, Leisenring, Pa. The combination with the base and inclined supporting-standards, of a rock-shaft mounted in said standards, a vertically-disposed shaft connected centrally at the ends of said rock-shaft, miter-gears loosely mounted, a frame mounted on the ends of the rock-shaft, guides carried by said frame, endless cutter-chains disposed one above the other, a vertically-disposed rotating worm, a segmental rack connected to the shaft and engaging said worm.

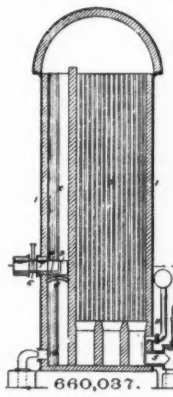
660,009. DRILL FORGING AND SHARPENING MACHINE. William J. Evans, Butte, Mont. The combination with a supported shaft having a double crank intermediate of its ends, a slidably-supported edge-forming die, and a pitman connecting this slidable die with the double crank, of a stationary channeled die held at a right angle to the edge-forming die, an opposite channeled die slidably held in the same plane with the fixed channeled die, a wear-block secured on the rear end of the slidable channeled die, a cam fast on a rotable shaft and adapted to press upon the wear block, and a bow-spring, one end of which is secured on the support of the channeled dies, and the other end engaging the slidable channeled die for its retraction.

660,027. CONVEYER-BELT. Josiah K. Proctor, Philadelphia, Pa., assignor to the Philadelphia Textile Machinery Company, same place. The combination of a wire belt, an edging consisting of a filled body-section, flaps on each side of the belt and secured to the belt by stitching, the said filled body-section being of the same thickness as the main portion of the edging, so that the bearing will be upon the flaps as well as upon the body-section.

660,032. COKE-LOADING MACHINE. John W. Seaver, Cleveland, Ohio, assignor to the Wellman-Seaver Engineering Company, same place. The combination of a suitable framework, a loading-pan, normally inclined so as to discharge its load, hoisting mechanism for said pan and controlling devices whereby the pan, as it is lifted, is projected bodily forward so as to carry its delivery end over the top of the car.

660,037. HOT-BLAST STOVE. Emil Vorbach, Kladno, Austria-Hungary, assignor to the Wellman-Seaver Engineering Company, Cleveland, Ohio. The combination of a hot-blast stove having a checker-work chamber and a combined ascending gas-flue and descending air-flue at one side of the same, a valved hot-air discharge pipe communicating with said flue, and a screen located in said flue below the mouth of the pipe so as to protect said pipe and its valve from the action of the ascending hot gases, said screen being less in width than the flue so as to provide passages for the upward flow of the gases on each side of the same.

660,043. ELECTRICAL FURNACE. Wilhelm Borchers, Aachen, Germany. The combination of a furnace-structure, a feed-chute for the material operated upon, two electrodes adjustably arranged in the furnace to form an arc, one of said electrodes being disposed be-



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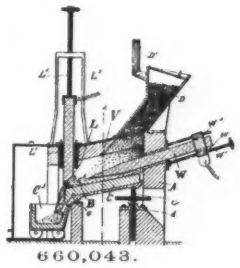

660,043.

tween the feed-chute and the other electrode and gradually tapered to a point, and means for feeding the material from the chute in a mass gradually decreasing in cross-sectional area over and past the tapered electrode to the arc.

660,059. OIL-WELL JACK. Richard W. Hudson, Toledo, Ohio, assignor of one-third to the Kirk Manufacturing Company, same place. A three-part frame suitably supported upon standards, a surface rod connected therewith, hinges formed at two angular points of the frame, and means for disconnecting the frame at a third point, a bifurcated extension on the frame, having an inwardly-extending recess, a cradle formed with a recess and arrangements whereby the working parts of the jack are capable of being removed from proximity to the polish-rod.

GREAT BRITAIN.

The following is a list of patents published by the British Patent Office on subjects connected with mining and metallurgy.

Week Ending September 15th, 1900.

10,756 of 1899. CHLORINATING GILD ORES. E. H. Sturge, London. A process for chlorinating gold ores, where the chlorine is generated in situ by a mixture of a sulphate and hypochlorite.

17,408 of 1899. COAL BREAKER. M. Klein, Kronpach, Hungary. Improved stamp mills for breaking coal for the coke oven.

18,328 of 1899. WELDING PROCESS. H. Goldschmidt, Essen, Germany. A welding process which consists of increasing the heat of the metal at the proposed point by the combustion of aluminum and a metallic oxide.

22,619 of 1899. ROASTING ORES. J. Diether and M. Merz, Aulendorf, Germany. In roasting gold ores, the admixture of alkaline sulphides for the removal of refractory constituents.

13,160 of 1900. ROCK-DRILL CHUCK. A. R. Ferns, Johannesburg, South Africa. An improved chuck for rock drills.

13,308 of 1900. DRILL-SHARPENING MACHINE. G. Glossop, Leeds. An improved apparatus for sharpening and forming drills for rock drills.

PERSONAL.

Mr. S. J. Ritchie of Toronto, Canada, is visiting New York City.

Col. H. J. Bosworth, president of the Verde Queen Mining Company, of Jerome, Ariz., is on a visit to New York City.

Mr. C. W. Kempton, mining engineer, of New York City, has been appointed manager of the Puritan Mines, Loomis, Washington.

Mr. D. Gillis has returned to Butte, Mont., and accepted a position with C. W. Clark as superintendent of his mining interests.

Mr. W. A. Watson, the former manager of the Economic Mill at Cripple Creek, Colo., has resigned his position and intends shortly to take a pleasure trip to Cuba.

Mr. Leon Cummins, of San Francisco, has accepted an engagement to erect and operate a cyanide plant of 40 tons in Sonora, Mex.

Mr. T. McLeod Muir, of J. & T. Muir, iron founders, of Melbourne, Australia, has been in Pittsburg, Pa., visiting foundries and steel plants.

Mr. R. L. Dunn, formerly of Placer County, California, is managing the Golden Fleece gold quartz mine at Johnson's Inlet, Ketchikan, Alaska.

Mr. Hans C. Behr, who recently left San Francisco for South Africa and the Rand, is now at Cape Town, where he may have to stay 3 months.

Mr. Edward W. Heyl, of the engineering firm of Heyl & Patterson, of Pittsburg, Pa., has returned from a 4 months' sojourn in Europe to recover his health.

Mr. H. W. Surtees, a representative of the Brunswick Malleable Iron and Steel Works at Derby, Eng., is visiting various malleable castings plants in the Middle West.

Mr. J. E. Beveridge, who has had charge of the property of the South America Development Company at Zaruma, Ecuador, has returned to Bingham, Utah, from South America.

Mr. John Oursler, who has had charge of the Mingo furnaces of the National Steel Company, succeeded Mr. Guy R. Johnson at the Youngstown furnaces of the company on October 22d.

Mr. John T. Been, of Mapimi, Durango, Mex., is spending a 5 weeks' vacation at his old home at Skanee, near L'Anse, Mich. Mr. Been is an old graduate of the Michigan College of Mines.

Mr. E. B. Braden, who has been Northwestern agent of the American Smelting and Refining Company, with headquarters at Spokane, is now in charge of the company's East Helena smelter.

Mr. W. E. Corey, of the Homestead Steel Works of the Carnegie Steel Company and manager of the Carrie blast furnaces, has been made manager of the Howard Axle Works of the Carnegie Company.

Mr. R. M. Thompson, president of the Orford Company, accompanied by Major R. G. Leckie, chief of the company's mining staff, will soon make a trip to England and France in the interest of the Canadian Orford Company.

Mr. Sidney Smith, mining engineer of San Francisco, part owner of the Lucas Mine of Mokelumne Hill, Cal., has been in Nova Scotia for 2 months testing several lots of tailings. He intends to erect plants to treat the tailings.

Mr. R. A. Parker, mining engineer of Boston, is about to make a long trip through the West, examining mining properties. His address from November 3rd to November 20th will be care of Centennial-Eureka Mining Company, Salt Lake City, Utah.

Mr. W. E. Thorne, superintendent of the Gold Bug Mining Company, Georgetown, Cal., has gone temporarily to take charge of his company's operations at Fuerte, Estado de Sinalo, Mexico. He expects to return to Georgetown early in 1901.

Mr. John Knox, Jr., of Hamilton, a graduate of the Michigan College of Mines, and for a year past acting as engineer for a large copper mine in Michigan, has taken the position of mining and constructing engineer for the Nickel Copper Company.

Messrs. Hennen Jennings and J. A. Dennison, of London, W. A. Weiss, of Oakland, F. W. Bradley, of San Francisco, and John Hays Hammond recently visited the Portland Mine at Cripple Creek, Colo. Mr. Burns, the president, says the mine is not for sale.

Mr. Arthur L. Pearse mining engineer of London, who has been in this coutry on professional business for several months, passed through New York this week on his way to London. Mr. Pearse spent some time in Arizona, but the greater part of his stay was passed in the Nome District in Alaska.

Dr. Ludwig Mond, accompanied by his son and Dr. Mohr, arrived at the Victoria Mine, Sudbury, Ont., on November 19th, from London, Eng., and will remain in the district for 2 or 3 weeks, inspecting mines and plants. The foundations for the smelter at Victoria siding are in, and the machinery is arriving. At the mine development is pushed and roasting ore has begun. An $8,000 residence is being erected near the smelter for Manager Hixon and his family. A brother of Mr. Hixon recently arrived from Colorado to be mining captain at Victoria.

OBITUARY.

Dr. Edward R. Squibb, one of the best-known manufacturing chemists of the United States, died at his home in Brooklyn, October 25th, after a brief illness, due to heart trouble. He was born at Wilmington, Del., on July 4th, 1819, of Quaker parentage. He was graduated from the Jefferson Medical College, Philadelphia, while quite young, and almost immediately was appointed a surgeon in the United States Navy, and subsequently passed surgeon in charge of the Brooklyn Navy Yard medical station. He resigned and started a private pharmaceutical laboratory in Brooklyn. He retired from active business 15 years ago, his two sons, Dr. Edward H. and Charles F. Squibb continuing the laboratory. Dr. Squibb was a man of integrity, of genial disposition, and a public-spirited citizen.

Ambrose Morrison McGregor, president of the Standard Oil Company, of Ohio, and one of the largest stockholders and a director of the Standard Oil Company of New Jersey, which is now the main Standard Oil Company, died at his home at Mamaroneck, N. Y., October 31st.

Mr. McGregor was vice-president of the Solar Refining Company, of Lima, O., and a director in the Cheseborough Manufacturing Company of New York City. His business interests never went outside of the Standard Oil Company and the petroleum industry, with the exception of some Florida investments. His widow and a son survive him.

Mr. McGregor was many times a millionaire. When the Rockefellers founded the business he was an independent oil operator of Cleveland, O. He allied himself with the Rockefellers and took stock in the Standard Oil Company. He was born 58 years ago at Cleveland. When the oil fields in Ohio began to show promise he started his refinery.

SOCIETIES AND TECHNICAL SCHOOLS.

Michigan College of Mines.—The total enrollment of students at this school for the new school year is 125. Prof. N. S. Osborne has resigned his position at the college as instructor of mathematics to take employment with the Champion Mining Company. The resignation will take effect November 3d. No successor has been announced as yet. It is announced that W. L. Honnold, of the class of '95, will soon go to South Africa to represent the companies for which he has been working in this country. This makes the fourth graduate of this college to go to South Africa.

Engineers' Club of Philadelphia.—At the meeting on October 20th 51 members and visitors were present. Mr. Carl G. Barth presented a paper upon "The Strength of the Ideal Column," which consisted of a large number of mathematical deductions by which the limitations of the generally accepted formulas were pointed out and several new formulas were derived, one of the latter giving a value for the elastic limit, which the author claimed to be so nearly accurate that he called it the ideal formula.

A consideration of the safe load on a practical column, which the author had intended to include in his paper, was but briefly touched upon on account of the lateness of the hour.

The subject was discussed by Messrs. James Christie, Edgar Marburg and the author.

Australasian Institute of Mining Engineers.—The first ordinary meeting of the Institute was held at Melbourne, beginning September 29th. The proceedings included the institute dinner, cursions to points of interest in Melbourne, Ballarat, Bendigo, Maldon and Moolort, and meetings for transacting business and presenting papers. The following papers were presented: "The Metallurgical Treatment of the Kalgoorlie Sulpho-Telluride Ores," by L. W. Grayson; "Blast Furnace Smelting of Lead," by G. H. Blakemore; "The Analysis of Chlorodized Ores," by P. J. Thibault; "Practical Hints on Deep Alluvial Mining," by D. H. Browne; "Dredging in New Zealand," by Wm. Wylie; "Chlorination as Practised at Mt. Morgan," by H. A. B. Leipner; "Presidential Address to New Zealand Institute," by James Park; "Geological Survey Notes," by H. Herman: "A Description of Diamond Drill, Calyx and Hand Boring in Victoria," by Stanley Hunter; "Cyanide and Chlorination Practice," by W. B. Gray; "Notes on the Treatment of Rich Telluride Ores in Connection with Lead Smelting;" "Copper Mining in New Caledonia;" "Improvement in the Application of Water-cooled Tests for Cupellation, etc.," by E. A. Weinberg; "Notes on Dredging," by Chas. L. Garland; "Recent Achievements in Mining Inventions," by G. G. Turri; "Damming Back of Mine Water from Old Workings," by A. S. Kenyon.

INDUSTRIAL NOTES.

The McMyler Manufacturing Company, of Cleveland, O., manufacturers of dock equipment machinery, is contenplating removing its works to Warren, O.

The Nordberg Manufacturing Company, Milwaukee, Wis., is to move into new and larger buildings and will employ 1,000 men, about a third more than at present.

Messrs. Hoopes & Townsend, of Philadelphia, Pa., have contracted with the American Bridge Company to build a bar mill building 70 ft. by 500 ft. on the line of the Trenton cut-off of the Pennsylvania Railroad.

The General Electric Company, of Schenectady, N. Y., has secured the contract to erect and equip the plant for the Guadalajara Tramway Company, at Guadalajara, Mex. The entire contract is valued at $460,000.

The Tubular Axle Company has been incorporated in New Jersey with a capital of $200,000. The incorporators are E. H. Benners, A. D. Keys, both of Elizabeth; E. G. Whittaker, of New York. E. G. Whittaker, attorney, New York.

The Pressed Steel Car Company, of Pittsburg, has received an order for 600 cars from the Chesapeake & Ohio Railroad, to cost about $600,000. The contract calls for 400 gondola and 200 self-clearing hopper cars, to be of 100,000 lbs. capacity. Deliveries of the cars will begin in December.

Messrs. John Johnson & Company, of New York City, state that after November 1st, 1900, their office and salesroom will be at 97 Liberty street, New York City. The equipping of their new shops at Garwood, N, J., with improved and special machinery will allow prompt and careful execution of all orders for "Johnson" Filter Presses.

Messrs. Manning, Maxwell & Moore, of New York City, are making arrangements with a Russian export firm for equipping various machine shops for the Russian Government. The shops are to be built near Vladivostok, along the route of the Chinese Eastern Railway. The George V. Cresson Company has secured the contract for the power-transmitting machinery for those shops.

Messrs Stein & Boericke state that they are making extensive improvements at their works at Primos, Pa., where they manufacture tungsten and molybdenum metals, etc. The firm is now adding an additional acid room and an additional building for the manufacture of red oxide of copper for electroplaters, and has just completed a storehouse, put in its own water works and built new engineering offices.

The Aultman Company, Canton, O., has installed in its foundry a new overhead crane for conveying molten metal. The company is to manufacture ice machines. Recent shipments include a 40-ton charging machine to the Duquesne Steel Works, a rock crusher to central Mexico, threshing machinery to Illinois and Michigan and conveying machinery to various points.

The plate glass plant of the Heidencamp Plate Glass & Mirror Company, at Springdale, Pa., is nearing completion. It will produce daily about 2,000 ft. of plate glass. The Lehr, instead of the annealing system, will be used. There are 3 buildings included in the plant, one 5 stories high, and together they cover a tract 800 by 300 ft. Plate and mirror glass will be manufactured and mirrors will be completed in the plant. About 300 men will be employed.

The Columbia Carbide Company, a new concern, which proposes to manufacture calcium carbide and calcium carbide furnaces, has been incorporated under the laws of West Virginia, with $5,000,000 capital. It is stated that the company will control new processes of manufacture. The incorporators are Jas. E. Campbell, of Hamilton, O.; A. O. Campbell, of Columbus, O.; D. Murphy, of Jersey City, N. J.; G. C. Adams and F. J. Patten, both of New York City.

Mr. G. B. H. Flapherts, director of the technical bureau of Holland's Colonial Office, and Mr. C. H. Weijs, chief engineer of the Soerrabaia water works in the Island of Java, as representatives of their government, were in Pittsburg last week, and placed an order for 12,000

tons of steel rails with the Carnegie Company, subject to ratification of the preliminary contract by their home government. The rails are for Java. While in this country they will also place an order for two whole trains. The order for the locomotives will be placed with the Baldwin Locomotive Works, and for the cars with the Pullman Company.

TRADE CATALOGUES.

Catalogue No. 4, 60 pages, issued by the American Steel and Wire Company, of New York and Chicago, is about springs. The company states that it has at Waukegan, Ill., and Worcester, Mass., the largest spring factories in America. The company makes buffer springs, car springs, machinery springs, valve springs, hinge springs, trolley springs and springs for many other purposes.

Ore cars, cages, buckets, wheels and axles are described in Catalogue No. 23 issued by the Trent Engineering and Machinery Company, of Salt Lake City. The ore cars are built of steel in a variety of patterns and are equipped with self-oiling axles. The company carries in stock several patterns of wheels and axles; also cages and skips. The Reynold horse whim and the Buffalo horse whim are also sold by the company.

The Pacific Tank Company, of San Francisco, Cal., sends out a circular supplement to its catalogue of cyanide plants and fixtures. The circular calls attention to the Hampton zinc lathe for turning zinc shavings. The company states this lathe has been in use over a year and has recently been greatly improved. It takes sheet zinc and cuts this into shavings 1/500 in. thick. Other appliances shown in the circular are vacuum pumps, automatic distributors and improved zinc boxes.

One of the characteristic booklets sent out by Westinghouse Electric and Manufacturing Company, of Pittsburg, Pa., is an attractive 44-page pamphlet entitled "Westinghouse Railway Motors." The company claims that in its railway motor designs it has brought the ventilated armature to the highest possible development and bases its claims on 10 years' experience in constructing railway motors. The illustrations show the general appearance of the motors and give details of construction.

A list of companies that are using the improved Roney mechanical stoker is sent out by Westinghouse, Church, Kerr & Company, of New York City and Pittsburg. The list includes some of the best known manufacturing concerns in this country and also the famous power plants of the Metropolitan Street Railway Company, the Third Avenue Railroad Company and the Manhattan Railway Company in New York City, the last-named plant being of 34,000 H. P. There are also installations of Roney stokers in Mexico and South Africa.

Hoisting machinery, including standard drums, geared multiple drum plants, direct-acting hoists with either single or double drums or conical drums and geared and direct acting reel hoists are shown in Catalogue 42, a 32-page pamphlet published by the M. C. Bullock Company, of Chicago, Ill. The illustrations show plainly the general character of the various types, while a list of some users of the company's hoists contains the names of such companies as the Tamarack Mining Company, the Mollie Gibson Mining Company, the Chapin Iron Mining Company, the Daly-West Mining Company and the Compania Huanchaca de Bolivia.

Linen, cotton and steel measuring tapes for all purposes are described in an 18-page pamphlet that is sent on application to Geo. M. Eddy & Company, of Brooklyn, N. Y. The firm states that it has made many improvements in its goods, and by the aid of new machinery is able to produce its goods at greatly reduced prices. It calls particular attention to its improved metallic and steel tapes for engineering purposes. In these tapes the company uses a process of direct printing the graduations from an absolute standard and guarantees great accuracy. The company makes tape to order in French, Spanish or Portuguese measures.

The Joshua Hendy Machine Works, of San Francisco, Cal., issues a 32-page pamphlet as supplement No. 2 to its general mining machinery catalogue. This supplement gives specifications of mining and milling plants for gold quartz mines. The outfit described is intended for prospects and small mines and comprises a Davis horse whim, steel ore bucket and car, "Hercules" ore crusher, "Challenge" ore feeder, Hendy triple-discharge 2-stamp mill with mortar screens and set of silvered copper plates and a "Triumph" or Hendy-Norbom concentrator. The total weight of the plant is put at 17,500 to 19,500 lbs. and the power required to run it 10 to 12 H. P.

The Bogardus mill for wet or dry grinding is now manufactured solely by J. S. & G. F. Simpson, of Brooklyn, N. Y. The mill is built in 7 sizes, 5 for dry grinding and 2 for wet grinding. It is built to use several styles of grinding plates and thus the same mill can, by changing the plates, do a wide range of work. The company states that the mill is adapted to grinding asphaltum, asbestos, clay, coal, cinders, coke, chemicals, fire brick, fertilizers, graphite, kaolin, magnesite, ores, ochres, paints, phosphates and phosphate rock, plaster, quartz, slag, sulphur, soda ash and soapstone. The 56-page catalogue contains full descriptions of the various sizes in which the mill is manufactured, with directions for setting up and running them. A long list of users and many testimonials are given.

The Baldwin Locomotive Works of Philadelphia issues a series of folders describing some of its standard types of locomotives. These include 4-wheeled switching locomotives with separate tender, light 6-wheels-connected switching locomotives, tank locomotives, "Atlantic" type Vauclain compound locomotives long firebox over rear axle, 6-wheels-connected switching locomotives with tank or boiler, 6-wheels-connected switching locomotives with long firebox over near axle, 6-wheels-connected switching locomotives with firebox back of rear axle, light locomotives of the 10-wheeled type for freight or passenger service, 10-wheeled passenger or freight locomotives with firebox between middle and rear axles and 10-wheeled passenger or freight locomotives, Vauclain compound, with long firebox over rear axle. For heavy freight service the company builds "consolidation" locomotives, of several patterns, including a Vauclain compound capable of pulling a load of 5,400 tons on a level.

MACHINERY AND SUPPLIES WANTED.

If any one wanting machinery or supplies of any kind will notify the "Engineering and Mining Journal" what he needs he will be put in communication with the best manufacturers of the same.

We also offer our services to foreign correspondents who desire to purchase American goods of any kind, and shall be pleased to furnish them information, catalogues, etc.

All these services are rendered gratuitously in the interest of our subscribers and advertisers; the proprietors of the "Engineering and Mining Journal" are not brokers or exporters, and have no pecuniary interest in buying and selling goods of any kind.

GENERAL MINING NEWS.

Anthracite Coal Company.—At a meeting of the stockholders in New York City, held in this city, the following directors and officers were elected: Directors—W. E. Pedrick, Charles C. Tegethoff, S. Halline, Wm. Bond Skerton, Frank P. Hoffman; Officers—W. E. Pedrick, president and treasurer; R. L. Carero, secretary. The Farmers' Loan & Trust Company was appointed registrar of the stock. It is said that this company has purchased several thousand acres of high grade anthracite coal lands, particularly in the West. The property, it is stated, will be equipped with approved machinery, and the product sold in the large Western cities.

ARIZONA.

Yavapai County.

Octave Gold Mining Company.—This company has a well developed mine producing ore from a 2½-ft. ledge said to average about the same in gold value as the Congress ore. The 40-stamp mill is running continuously.

CALIFORNIA.

Amador County.

(From Our Special Correspondent.)

Balliol.—Sixty-five men are at work at this mine east of Sutter Creek, under the superintendency of W. H. Storms. New buildings are being erected. High-grade ore is said to be milled and large shipments of sulphurets made.

Belmont.—One hundred tons of ore from this mine has been sent to the Reward Mill for a test run. The result will determine what machinery will be put in to treat the ore, which is said to be high-grade and very heavily sulphuretted. Heretofore the ore has been shipped to the smelter.

Free American.—At a depth of 115 ft. at this mine, 7 miles up the creek from Sutter, the rock is porphyry and slate, said to yield from $5 to $20 per ton. There is a good hoist and a new centrifugal pump on the property.

Sargent.—The working force at this mine on Mokelumne River, 2½ miles south from Jackson, has been increased and a 700-ft. tunnel is started to cut the 6-ft. ledge.

Calaveras County.

(From Our Special Correspondent.)

Lew Wallace.—Development work at this group of mines, 2 miles northeast from San Andreas, shows a 48-ft. vein between well-defined walls. The rock is a decomposed quartz which prospects well.

Lightning Mining Company.—This company has declared a dividend of 5c. per share payable October 29th. The mine is in good shape and promises well. It is located at Angels.

El Dorado County.

(From Our Special Correspondent.)

Bright Hopes & Electric.—The tunnel on this property northeast from Georgetown is now in over 700 ft. and the bonders expect to strike the ledge in a few weeks.

St. Clair.—Operations at this mine at Kelsey are about to be resumed. The 5-stamp mill at the Wagner Mine will probably be moved to the property and a steam engine put in. The drifts will continue on the 200 ft. The milling tests are said to average over $10 per ton.

Humboldt County.

(From Our Special Correspondent.)

Little River Beach Mining Company.—This company is washing about 300 tons of black sand every 24 hours, at the mouth of Little River. The sand is pumped through a 6-in. pipe into a trommel, where it is separated, the gold remaining in the finest sand, which by water pressure is evenly distributed by narrow troughs into 12 boxes. Each box contains 5 quicksilver plates, which catch the gold. The weekly clean-up averages $300. Seven men work 2 shifts.

Mariposa County.

Hite Cove Mining Company.—Mr. E. L. Foster, president of this company, reports that the new air compressor and cyanide plant are about to be shipped from Merced to the mine, about 28 miles east from Mariposa.

San Bernardino County.

(From Our Special Correspondent.)

Virginia Dale District.—At the Supply Mine a large amount of development work has been done. A 600-ft. tunnel has been run, a 227-ft. shaft sunk and crosscuts, winzes and levels run at 52 and 102 ft. below the tunnel level, from the main shaft. The strike reported recently was made 52 ft. north of the main shaft, the ore body being over 10 ft. in width, assaying high in free gold. New machinery is to be installed at once.

At the Ivanpah, new ore bodies from 1½ to 6 ft. in width have been cut; the mill runs are from $16 to $30 per ton.

Shasta County.

Trinity Copper Company.—At a stockholders' meeting in Boston last week the following were elected directors: Thomas W. Lawson, Allen Arnold, Henry H. Arnold, of the firm of Lawson, Arnold & Company; Homer Albers, general counsel for Thomas W. Lawson; William J. Riley, of Brown, Riley & Company; Louis Auerbach; Arthur P. French; Frank E. Chase; Kenneth K. McLaren. At a meeting of the directors held at Thomas W. Lawson's office the following officers were elected: President, Thomas W. Lawson; vice-president, William J. Riley; treasurer, Allen Arnold; secretary, Homer Albers; general manager, Louis Auerbach.

Plans were submitted and approved for the erection of a 750-ton smelter, a converter, 9 miles of railroad to connect the mines with the Southern Pacific Railroad, and the purchase of railroad rolling stock and equipment, the installation of a hydraulic plant and the purchase of a fluxing mine.

Engineers' statements were submitted showing that the entire plant would be in full operation and production August 1st, 1901. Financial arrangements were submitted and approved.

Siskiyou County.

(From Our Special Correspondent.)

Deep Bank.—At this gravel mine on the South Fork of Salmon River, 23 miles from Trinity Center, work is being pushed for a big winter run. As soon as the water comes, piping will begin.

Dewey.—From this group of mines 8 miles from Gazelle, on Squaw Creek, daily shipments of ore to the smelter continue.

King Solomon.—Since this mine has been opened over 28,000 tons of ore have been milled, and $125,000 of bullion extracted. The plant consists of a 5-ft. Huntington mill, which crushes 60 tons daily. The water supply is very short during the summer. F. N. Fletcher is part owner and manager.

Summerville.—A great deal of work has been done to get the mine in shape for the season's run. An extra pipe line is being laid across the Salmon River, from Little South Fork, adding 500 in. to the 2,000 in. now used. A giant is to be put in at the tail end of the race, to pipe tailings away.

White Bear.—A company has been organized to work this property, located in the Black Bear

District. The old tunnel will be cleaned out and a new tunnel driven from the old workings. John Daggett, of the Black Bear Mine, is interested.

Trinity County.

(From Our Special Correspondent.)

Silver Crescent.—This claim in the Las Perlas District, on the Salmon River, has developed a well-defined ledge 4 ft. in width, which prospects over $15 per ton. The property is worked by Krull and Van Ness, the locators.

Tuolumne County.

(From Our Special Correspondent.)

Riverside.—This old mine on Stanislaus River, 5½ miles northeast from Columbia, is being developed systematically. A shipment of ore from a point 300 ft. above the river, sent to San Francisco is said to have yielded about $150 per ton.

COLORADO.

Fremont County.

(From an Occasional Correspondent.)

The large chlorination plant of the Union Gold Extraction Company at Florence is nearly completed. During the past few days much of the machinery has been tested and sampling will commence about November 10th. The office building is nearly completed and the office will be moved there at once. W. B. Milliken is manager and John E. Rothwell the superintendent.

Gilpin County.

(From Our Special Correspondent.)

Mining Deeds and Transfers.—C. L. Harter to W. H. Newcomb, the Farmer Boy and Hamen lodes and 2-3 interest in Farmer Girl lode; S. Newkirk to G. W. Blethen, ¼ interest Pewabic and Russell lodes; E. W. Williams to C. L. Harker, ½ interest in Fairfield lode; J. C. Kelly to J. L. Stickel, 1-3 interest Beatrice lode; J. L. Stickel et al. to the Josephine Mining and Milling Company, the Beatrice lode.

Cook.—A 3d shift is at work and the working force numbers about 150 men. The daily shipments average between 250 and 300 tons, the smelting ore being separated at the mill. C. K. Colvin is manager, with Matt Jelinek superintendent.

Fisk Mining and Milling Company.—A special meeting of this company has been called at the company's office at Haverhill, Mass., on November 22d, to consider the sale of the property. It is believed that a consolidation of the Fisk, Cook and other properties is to be effected.

I. X. L.—Hall & Company, of Russell Gulch, have taken a lease and bond on this property.

Pittsburg-Meeker.—A good strike of yellow and gray copper ore has been made in the 400-ft. levels. Angus Campbell, of Central City, is superintendent.

Lake County—Leadville.

(From an Occasional Correspondent.)

Chapman.—This gold belt shaft is down 150 ft. and arrangements are being made to put in a fine plant of machinery.

Coon Valley.—After many months of prospecting and development, this Rock Hill property has opened a fine body of nigh-grade carbonate ore, proving the continuity of the old Oro ore shoot. The shaft was sunk over 20 years ago to 650 ft., but water prevented exploration at that depth.

Gordon Tiger Mining and Reduction Company.—This company, operating near Twin Lakes, is developing its property and intends to put up a 20-stamp and concentration mill during the coming spring. A. Forsyth is superintendent.

Ibex Mining Company.—Shipments average about 8,000 tons a month of oxidized and sulphide ores. Shipments will likely increase after the first of the year.

Jay Bird Group.—In the Frank claim under lease a body of milling gold ore of good size, which will average $12 to the ton, is reported cut.

Little Chief Mining Company.—Manager Austin Blakey is making surface improvements prior to resuming work on this Fryer Hill property.

Nisi Prius.—The new shaft is down 750 ft. and a lead is followed which shows assays of 12% lead, 4 oz. silver and a trace of gold.

Resurrection Gold Mining Company.—The report of the strike in shaft No. 2 is without foundation. Immense ore bins are being built and arrangements made for heavy shipments after the ore shoot is opened.

Robt. E. Lee.—Lessees ship 25 tons of iron ore from the south Lee shaft but are now retimbering and cleaning out the Cage shaft preparatory to sinking for a rich ore body. In cleaning up the old workings they have opened a streak of horn silver.

Rose Emmett.—The shaft is down 540 ft. The contract calls for 600 ft. A fine surface plant is in place and work will be pushed all winter. The company has 34 acres of ground.

Vivian.—Lessees are opening up a wonderful body of carbonate ore which averages 30% lead, 20 oz. silver.

Weldon Mining Company.—No. 1 shaft is steadily producing. No. 2 shaft plant has been rebuilt and shipments will resume this week.

Yankee Doodle Leasing Company.—The company is now shipping about 900 tons a month of very low-grade iron.

Ouray County.

The Highland Chief, Little Nora, Excelsior, Electra, Electra mill site, Smelter Trust and Iowa claims have passed from George L. Wright and Milton Moore to John Blatt, of Cleveland, O., the consideration being $30,000. The promoter was F. M. Jackson, of Ouray. The properties are situated on Silver Creek basin about 4 miles south of city, and the Smelter Trust and Iowa are located between the Camp Bird and the Atlas, the latter adjoining the Revenue. The Highland Chief was a shipper of paying ore before 1893.

Pitkin County.

Mollie Gibson.—A new pumping station was recently cut at 1,060 ft. in the Mollie Gibson, where pumps from the old Argentum-Juniata workings have been installed. The workings of the two mines are connected by trolley line.

San Miguel County.

Butterfly Terrible Gold Mining Company.—The monthly report sent out by Secretary F. J. Hobbes shows that in September the net earnings were $4,949. From May to the present time the returns from bullion and concentrates has been $34,531. Of this sum $3,571 was from concentrates and $39,959 from bullion shipped. The output is not only heavier, the secretary reports, but the mine and mill are in position to maintain a steady production. The main ore shoot at present is 475 ft. long and averages 2 ft. wide. Hereafter reports will be made quarterly.

(From Our Special Correspondent.)

Four Metals Mining Company.—Everything is in shape at this company's property in Watton Fork of Gold King Basin, for winter work. A new bucket tramway, 1 mile long, is completed from the mouth of the main working tunnel down into the timber below, insuring steady shipments. The tunnel has been driven on the vein 800 ft. and it is the intention of the resident manager, J. H. Shockley, of Telluride, to push it 800 ft. further. The company purchased the property known as the Palmyra Group about 1 year ago, and has since shown it to be one of the most promising groups of claims in the county. The pay streak is from 1 to 5 ft. wide, a portion of which is high-grade ore and pays a handsome profit when shipped to smelters crude. For some time past the shipments have been averaging 1 car-load a day, and the smelter returns are from $200 to $1,500 per car. The ore carries gold, silver, lead and copper, but no pay is received for the copper, and the chief values are silver and lead. The low-grade mineral is stacked for concentration, it being the plan of the company to build a large mill next spring near the end of the tramway. A gang of men is driving a tunnel on the St. Julian Lode which within the next 200 ft. is expected to cut 2 fine leads. One of them carries a pay streak 2 to 16 ft. wide, from which 2 car-loads of ore yielded an average value of $50 per ton in gold and silver, while a 50-ton lot treated at a custom mill yielded $8.50 per ton on plates. The other vein carries a pay streak from 6 in. to 2 ft. wide running strictly in silver and lead and yielding $50 per ton. The boarding and bunk houses are being enlarged, and next season the property will probably be among the largest producers in the county.

Japan Mines Company.—This company's mill, close to the mine, has been in continuous operation since May 1st and the water supply indicates that it can be kept running until January. The plant treats an average of 60 tons in 24 hours, and the ore concentrating on the basis of 4 and 6 tons into 1, the product is 10 to 15 tons daily, which returns an average value of $100 per ton in gold, silver and lead, principally the two latter. Several cars of high-grade ore running from $100 to $150 per ton are shipped crude to the smelters every week. Heavy development is going on in the lower workings and by next spring there will be more mineral blocked out and in sight than ever before. T. Walter Beam, of Denver, is general manager.

Liberty Bell Gold Mining Company.—Forty additional stamps are being installed in this company's mill on San Miguel River, 1 mile above Telluride, giving a treating capacity of 300 to 320 tons in 24 hours. Liberty Bell mineral being so easily milled that each stamp disposes of 4 tons daily. The mill makes a close saving, the product after passing over the copper plates going to the concentrators and from thence to the cyanide plant. There is said to be plenty of ore blocked out in the mines which are conected with the mill by a rope tramway 2 miles long. J. W. Mercer, of Telluride, resident manager, will shortly go to South America to examine mining property for the United States & British Columbia Mining Company, the parent of the Liberty Bell, and during his absence Arthur Winslow, one of the directors, will act as manager.

San Juan Gold and Silver Company.—By the cyanide process this company is treating tailings on the Gold Run Placer, 1 mile above Telluride, at a reported handsome profit. The capacity of the plant is 200 tons in 24 hours. According to tests the tailings run from $1 to $14 in gold and silver per ton and it is said that more than 75% of the values are saved. The tailings, which have come down from the Smuggler-Union and other mills, have been accumulating for the last 12 or 15 years. It has been estimated there are between 200,000 and 300,000 tons on the placer. W. E. Gill, of Telluride, is manager.

Smuggler-Union Mining Company.—This company has secured control of a portion of the waters coming over the Bridal Veil Falls, over 300 ft. heigh, and one of the most beautiful in the state, and will hereafter during the summer season run its 2 mills at Pandora by water power. Men are building a flume from the falls to the mill, a distance of about ½ mile, and next spring the water will be turned in. The company is building a new wire rope tramway from the mills to the Pennsylvania Tunnel, about ¾ of a mile, and the lower terminal is nearing completion. The present objective point of the Pennsylvania tunnel is the Smuggler-Union vein, which is expected to be cut at a depth of nearly 700 ft. below the lowest workings of the Smuggler-Union. The tunnel is now in 3,000 ft. The old tram since March 1st has been carrying an average of 13,000 tons of mineral per month and taking up supplies for the property. The ore is concentrated on the basis of 4 to 6 tons into 1, though the free gold is saved on the plates.

Teller County—Cripple Creek.

Victor Gold Mining Company.—A Boston dispatch says that the stockholders will shortly receive a circular from the directors requesting a voluntary payment of 80c. per share with which to satisfy a judgment against the property for $153.516. The property will be sold on November 2d, to satisfy this judgment, but the stockholders have until May 2, 1901, in which to redeem. This $153,516 represents funds advanced for development work. Should the above 80c. be contributed by the stockholders, and it is found expedient to further continue development work, an additional contribution of 70c. per share will be requested. Anticipating that the plan may not meet the co-operation of any considerable number of shareholders, the directors have outlined a plan which provides for the organization of a company with 200,000 shares, par $5, to be offered to present stockholders at $1.50 per share. Of this amount 80c. will be made payable August 2d, 1901, and the balance as called for. Messrs. D. H. Moffat and Eben Smith, being the largest holders in the company's shares, have agreed to underwrite the subscription. Since February 15th, 1893, according to the circular, the company's ore sales have netted $2,216,670, and stockholders have received $1,155,000 in dividends. The directors believe that exploitation should be continued. The mine has been practically barren below the 500-ft. level. Stockholders are requested to signify their intentions not later than March 1st, 1901. In case the stockholders elect to pay the voluntary contribution of 80c. per share, they will receive in return certificates of indebtedness, bearing 8% interest, and payable out of the first surplus of the company not needed for operating expenses.

(From Our Special Correspondent.)

Constantine Consolidated Mining Company.—The control of this company is now with Edsall Key and Company, of Colorado Springs, and Gandy and McAllister, J. R. McKinnie having sold his stock. Mr. Hobbs, of Edsall Key & Company, has been appointed president and general manager.

Dillon Gold Mining Company.—The mine has closed temporarily to arrange for 200 ft. of sinking. This will give a depth of 1,000 ft. The property adjoins that of the Portland and Strong on the West, and that of the Gold Coin and Granite on the East.

Ida May Gold Mining Company.—A recapitalization is talked of. The property consists of about 25 acres on Raven Hill, adjoining that of the Elkton and Ingham.

New Haven Gold Mining Company.—The plant of machinery over the old Eclipse shaft has been moved to the new workings. The shaft is down 190 ft. and a crosscut is being run to the old one.

Orphan Gold Mining Company.—A special meeting of the stockholders of this company has been called for December 1st to consider the

changing of the number of directors from 5 to 3, the provision of a treasury fund, the encumbering of the company's property, a proposition to bond and lease the property, the sale of the property and assets of the company and also to ratify the action of the board of directors in these particulars.

Princess Alice Company.—A 12-drill compressor will soon be installed on the Ruby.

Stratton's Independence. — Another miners' strike is on at the mine, said to be due to the management not keeping its agreement to search only those suspected of ore stealing. It is stated that the whole force of 300 men were searched when coming off shift. A resolution has been prepared by the men to the effect that they will henceforth leave the mine in their digging clothes.

Vindicator Consolidated Gold Mining Company.—A summary of report shows mine expenses $64,463; paid to lessees, $34,883; equipment, $11,859; buildings, $4,050; taxes, $5,830; total, $121,085. Subtracting this from the net profit leaves a balance of $40,243. There has also been $50,000 invested in stock of the Union Gold Extraction Company. The mine is in splendid condition.

IDAHO.

Lemhi County.

Gold Stone.—Horace W. and Charles M. Soule, of Neihart, Mont., have sold this group, situated on Pratt Creek, to a syndicate represented by H. P. Gies, of Great Falls; Jack Turnblade, of Giltedge, and others. This group of claims carries high-grade free milling gold ore, and has on it a 10-stamp mill. The shaft is sunk 250 ft. deep. From the 130-ft. level is run 1,200 ft. and the 230-ft. is in 700 ft. A cross-cut tunnel is being run to tap the vein 500 ft. deep. It is called one of the best developed mines in the county.

Shoshone County.

Dobson Jim Mining Company.—This company is developing a group of 4 claims not far from Murray.

Hecla.—The compressor plant is in running order, the hoist will soon be ready, when sinking will commence. The compressor has a capacity of only 20 drills, but the plant is one of the most complete in the Coeur d'Alenes. The hoist will be able to work as deep as those of the Frisco, Standard or Tiger, about 2,500 ft., and the power supplied by the boilers will be sufficient to hoist and pump from that depth.

Lucky Jim.—A strike of good ore is reported on this claim near Murray.

Otto-Star Company.—This company, lessees of the Mother Lode, at Murray, has made a clean-up after running 105 tons of ore through the mill, getting 2 bricks of gold.

Snow Storm Mining Company.—This company is working some ground a short distance above Mullan and has supplies on the ground to keep men at work all winter.

Washington County.

Blue Jacket.—This mine in the Seven Devils country near Cuprum has closed down temporarily to install new machinery. Stuart French is superintendent.

ILLINOIS.

Madison County.

Kerens-Donnewald Coal Company.—This company, incorporated with a capital stock of $160,000, has begun the development of its coal property at Worden, Ill., on the Chicago, Peoria & St. Louis and the Wabash railways, 28 miles from St. Louis. The company owns coal deposits on more than 1,000 acres of land and has sunk a shaft to 265 ft, through which it expects to take out from 1,500 tons to 2,000 tons of coal a day. All the most improved machinery, including electric cutters, will be provided for its equipment. The hoisting engine will be of the Litchfield Foundry and Machine Company's make. The buildings are now under construction. The Rohan Boiler Company, of St. Louis, will furnish the boilers. The officers of the company are Vincent Kerens, president; Geo. H. Donnewald, vice-president and general manager; C. H. Smith, Jr., secretary. The office is in the Third National Bank Building, St. Louis.

MICHIGAN.

Copper—Houghton County.

Calumet & Hecla.—The work of rebuilding 3 reverberatory furnace at the smelting works at South Lake Linden is nearly completed. These furnaces are increased in size and will smelt the No. 2, or low grade, mineral more economically than the old furnaces. Each furnace will be equipped with a steel charging platform reducing the labor of charging the furnaces to a minimum. The new stacks are 93 ft., while the old ones were only 63. A new 40 by 96-in. cupola is being put in, in place of a smaller one which has been in commission since the works were first built. The cupola will be completed about December 15th. The addition to the mineral house is also nearing completion. It is 126 ft. long by 67 ft. wide and the entire length of the mineral building is now 311 ft. It is supplied with two rows of bins for receiving and storing mineral.

(From Our Special Correspondent.)

Arcadian Copper Company.—This company has begun preparation for building a branch railroad to the new shafts on the Mesnard epidote. The branch road will be 1 mile long. The Mesnard epidote is being opened systematically.

Atlantic Mining Company.—This company is continuing its exploratory work for a new lode 400 ft. west of B shaft. The nature of the lode sought for is not known to the public.

Baltic.—According to official measurements No. 1 shaft is down 219 ft.; No. 2 shaft, 260 ft.; No. 3 shaft, 367 ft.; No. 4 shaft, 360 ft., and No. 5 shaft, 248 ft. The total amount of drifting done is 7,717 ft.

Trimountain.—This company has men clearing the site for its new stamp mill.

Copper—Ontonagon County.

Victoria.—Thirteen power drills are being run now and about 600 ft. of drifting is being done monthly. In all 95 men are employed. The north cross-cut is in over 700 ft. without finding anything and it is to be abandoned. Three new epidote lodes are reported opened south of the present mine, and some very good stamp rock taken out. These lodes all carry copper in encouraging quantities.

Copper—Keweenaw County.

(From Our Special Correspondent.)

Arnold.—This mine has shipped 40 tons of mass and barrel copper to the Portage Lake smelters. No statement of the period of production covered by this shipment is made.

Iron—Marquette Range.

The annual report of the mine inspector of Marquette County shows that there were 6,627 men working September 1st, at 31 mines and 6 explorations, at wages nearly double what they were in 1896. That year the number of men employed was 4,153. The report also shows that during the year 24 men were killed by mine accidents, or a proportion of 3.62 to the 1,000. Dickinson County, outside 700 men at Crystal Falls, has 3,213 men at 21 mines.

Beaufort.—This mine near Michigamme is to be closed for the winter. About 40 miners will be thrown out of employment and the workings will be permitted to fill with water. The property has been wrought during the past few months by the Bristol Mining Company, a branch corporation of the Commonwealth Company. The slack demand for ore and unpromising aspect of the market are the reasons for the suspension.

MINNESOTA.

(From Our Special Correspondent.)

The movement of contract ore closes this week and there have been exceedingly heavy shipments the past few days. Exceptionally good dispatch has been given vessels.

Nearly all large shippers in Minnesota practically wind up this week. The Carnegie mines in the State, over 2,000,000 tons, are practically done; Biwabik and Mahoning, nearly 1,000,000 tons each, are through; Minnesota Iron Company, roughly 3,000,000 tons, has but a few more cargoes to ship.

Shipments from the Duluth & Iron Range docks to Saturday were 3,600,000 tons. It is not likely the road will reach last year's record of 4,000,000 tons. The Duluth, Missabe & Northern has shipped to date about 3,800,000 tons. Its record for all last year was 3,534,000 tons. Many train crews and dock hands have been laid off by both these roads and by the Eastern Minnesota.

It is rumored that the Eastern Minnesota road is figuring on a new method of ore storage and dock handling which, while a trifle more costly per ton, will double the capacity of the present dock equipment.

Iron—Mesabi Range.

(From Our Special Correspondent.)

The Duluth, Missabe & Northern road is surveying lines to the Stevens, on which it has a traffic contract. The mine will probably be opened the coming winter.

Mahoning Ore Company.—This mine, closed Monday for the season with shipments for the season of 911,000 tons. This is 161,000 tons more than in 1899 and gives the mine a total of 2,987,000 tons in the six years it has been open. It had been intended to ship 1,000,000 tons this year. Three steam shovels were used in ore. Stripping contractors are still at work.

Shipments from most of the underground mines of the range will continue for some weeks yet.

Oliver Iron Mining Company.—Messrs. Jas. Gayley, D. M. Clawson, N. P. Hulst and T. F. Cole, of the Oliver Iron Mining Company, have, it is said, just inspected the Minnesota Iron Company's explorations near Mesaba Station and will probably secure the option thrown up by the Minnesota Company, if they have not already secured it. Close beside these explorations are others for O. D. Kinney and associates, which also will be in the Oliver deal. The various tracts, partly leases from railways and the State and partly fee lands, are mostly in sections 20, 21 19, 28, 29 and 30, T. 59, R. 14. The deal, if closed, will be one of the most important of the year in undeveloped properties.

Republic Iron and Steel Company.—This company is examining some recent explorations in T. 58, R. 19, with a view to purchase, and is also arranging to explore some neighboring lands.

Iron—Vermillion Range.

(From Our Special Correspondent.)

Oliver Iron Mining Company.—This company has stopped shipments at the Pioneer, Zenith, Savoy and Sibley mines, with an output of 650,000 tons. The mines will stockpile heavily all winter. The Minnesota and Chandler mines are still shipping and will continue for some time, Chandler to the close of navigation.

MONTANA.

Carbon County.

Rocky Fork.—The weekly output of coal is over 10,000 tons. Almost 400 men are on the pay roll.

Deer Lodge County.

Eva Jane.—Work with the diamond drill is pushed by Thomas Cruse along the croppings of the veins on this group, on the ridge west of Prickly Pear Creek, where it empties into the Missouri River. At the same time the 3 shafts sunk by early settlers are being cleaned out. One of these is down 150 ft. and is to be sunk deeper. A hoist and boiler are being erected. There is about 3 ft. of smelting ore in the bottom, said to carry $15 in gold; 13 men are employed. The shafts were abandoned many years ago, having shown only smelting ore too low grade to pay. The claims were re-located by George Reed, who bonded them to Mr. Cruse for $25,000.

Fergus County.

New Year Gold Mine Company.—President Schiffman, Treasurer Timothy Foley and Secretary G. M. Nelson, all of St. Paul, recently visited the company's mines near Harlow, accompanied by A. S. Wright and Superintendent Meredith. The New Year Mill is not being run at present, but work in the mines has been increased and ore is being taken out.

Spotted Horse.—A large Huntington mill was recently purchased by A. S. Wright & Co., and will be used with the stamps. A very rich strike of ore is reported. The mine is a pocket proposition. Mr. Wright purchased a large part of the machinery of the old Cumberland mill at Castle and this is now being shipped to the Maginnis, Whisky Gulch and Spotted Horse. It is hoped to have the new Maginnis mill completed this fall, but this will depend upon the weather. At Whisky Gulch upwards of 60 men are working and work is pushed.

Madison County.

Centennial Toledo Mining Company.—The stockholders have elected the following trustees: Joseph Annear, John E. Dawson, Savin Lisa, P. A. Gamer and Joseph Lortie. The trustees elected Joseph Annear president, John E. Dawson vice-president, P. A. Gamer secretary and Savin Lisa treasurer. The company's 9 claims are located near Sheridan. The new shaft which the company started to sink on the ledge in the tunnel is said to have encountered 2 ft. of fine-looking ore.

Old Joe.—This mine has closed down, and it is thought that the shut-down will be permanent. About 100 tons of Old Joe rock were run through Cowan's mill, but much of the values are reported as lost. The 12 men who were working at the Old Joe will go to work on the Keystone.

Missoula County.

Copper Cliff.—This mine, which was recently closed down, has been purchased by Butte parties and a large force of men set to work. The former owners found a mud fault in the vein and became discouraged.

Silver Bow County.

Anaconda Copper Company.—The Anaconda shaft is in commission again, according to re-

ports. The break in the hoist has been repaired; 850 men were temporarily laid off.

NEW MEXICO.

Colfax County.

Blue Bandana.—This tunel at Elizabethtown is in 720 ft. The Red Bandana lead will be struck in a short time.

Dona Ana County.

New Mexico Lead Company.—The concentrating plant is to be in operation soon. An 8 by 10 tunnel is being driven. The tunnel will make connection with a shaft which is now being sunk to 120 ft. The concentrating plant is 20 ft. below the new tunnel opening. There are 34 men employed and 9 10-mule teams are hauling the ore from the mine to Las Cruces for shipment to the smelter.

Sierra County.

American Placer Mining Company.—The work of this company at Jicarilla is reported progressing. An abundance of water is reported struck in the well, which is down 365 ft. and will be sunk still deeper.

Lake Valley Mining Company.—This company is taking up its line of 6-in. water pipe and shipping the pipe to Arizona.

NEW YORK.

St. Lawrence County.

The Columbia Talc Company, the American Talc Company and Keller Brothers' Talc and Pulp Company have been combined into the Union Talc Company with a capital stock of $1,000,000. H. G. Hanford has been elected president. The business of the company will be conducted at Gouverneur.

OREGON.

Baker County.

Mammoth Gold Mining Company.—A find of high-grade gold ore is reported in the Belle of Baker claim. The shoot is said to be 12 ft. wide. H. S. McCallum, of Baker City, is superintendent.

PENNSYLVANIA.

Anthracite Coal.

Miners' Strike.—The great bulk of the striking miners returned to work on Monday, October 29th, after having been out 6 weeks, and the strike practically ended that day. Some of the collieries in the Wyoming region and some in the Lehigh Region did not post notices of a 10% advance in wages but in some of these cases the company gave its employees to understand that such an advance would be granted. The Susquehanna Company came to such an agreement with its miners at William Penn Colliery in the Schuylkill Region. The Milnesville Colliery of the A. S. Van Wickle Company, was to resume by November 2d. The firm of Calvin Pardee & Company had trouble about taking back some men employed at Lattimer, but the matter was finally adjusted. At the Derringer Colliery, of Coxe Brothers, near Hazleton, the men are out on a strike over wages. At the Delaware & Hudson Coal Company's Hudson Colliery, near Wilkesbarre, the miners are out, alleging excessive dockage, and at the Calbert Colliery, near Shamokin, many miners are out. None of these local strikes is thought to be of much importance.

Kingston Coal Company.—An explosion of gas in No. 3 slope of No. 1 shaft at Edwardsville, on October 30th, killed 6 miners and seriously injured several others. The cause of the explosion is thought to be due to a body of gas which accumulated while the mine was idle. At present the slope is on fire.

Mill Creek.—Trouble has broken out at this colliery of the Delaware & Hudson Coal Company, in the Wilkesbarre District. About 450 employees have again struck, because of a dispute over toppage.

Philadelphia & Reading Coal and Iron Company.—This company makes the following statement for September and the three months of its fiscal year from July 1st to September 30th:

	September.	Year.
Earnings	$2,712,918	$7,275,150
Expenses	2,511,776	6,873,785
Net	$201,142	$401,365

For the three months there was a decrease of $587,132, or 7.5%. There was a decrease of $351,039, or 4.9%, in expenses, leaving a decrease of $236,093, or 37.1%, in net earnings.

Lehigh Valley Coal Company.—The statement for September and the ten months of the fiscal year from December 1st to September 30th is as follows:

	September.	Year.
Earnings	$1,956.997	$15,817,049
Expenses	2,009,269	16,535,501
Deficit	$52,272	$718,452

For the ten months the earnings increased $1,189,516, or 7.8%, and the expenses $1,475,676, or 9.8%; leaving an increase of $286,160 or 66.9%, in the deficit.

Bituminous Coal.

(From Our Special Correspondent.)

A tract of 600 acres of fine coal land in the West Bethlehem region has been purchased for Eastern capitalists by J. W. Ely, of Washington County. The block lies on Little Daniels Run, about 2 miles south of Scenery Hill, and but a short distance west of Beallsville.

Atlantic Iron and Steel Company.—This company will resume work at its Atcheson coke plant, after an idleness of several weeks. The plant employs 150 men.

Cambria Iron Company.—This company is negotiating for the purchase of extensive coal fields in St. Clair Township, Westmoreland County. The consideration is $200 an acre. Richard Kennedy, of McKeesport, is engineering the deal.

Hustead & Seaman's new coke plant at Cheat Haven will soon be ready.

SOUTH DAKOTA.

Custer County.

(From Our Special Correspondent.)

The Mizhaud Brothers, and Chas. Bush, of Custer, have found a very large cave 16 miles west of Custer, rivalling the famous Crystal and Wind caves, of the Black Hills. The discoverers have already explored half a mile of passageway, which is broken by caverns and chambers of enormous size, one of them being 300 ft. square.

Globe Mining Company.—J. V. Jones, one of the officers, has gone to Denver with a carload of ore from the Globe Mine, 8 miles northwest of Custer. A shaft is down 65 ft. deep with drifts. The vein is said to be about 12 ft. wide.

May.—Custer business men will organize a company and pursue development. The ledge is about 8 ft. wide at the 100-ft. level.

North Star.—At the 300-ft. level a crosscut was run striking the vein at 93 ft. The ledge is 8 ft. wide. The shaft will be sunk 500 ft. deep. An Omaha company is working it.

Wabash.—Dr. Edward Fink, of Milwaukee, has been over Custer County looking for desirable properties. The Wabash Mining Company will be the first to be started up by him.

Lawrence County.

(From Our Special Correspondent.)

Clover Leaf Mining Company.—A new hoisting plant is being installed at the Uncle Sam Mine, on Elk Creek, capable of sinking 1,000 ft. Pierre Witaux, president of the company, and F. W. Smith, vice-president, of Witaux, Montana, are at the mine.

Galena Mining Company.—This company has shipped to Fraser & Chalmers, Chicago, all of the mortars intended for the stamp mill begun at Galena by the old Union Hill Company. There were 27. The company has very little free milling ore. The company has several miners at work.

Ironsides.—It is stated that the Colorado-Deadwood Company, which purchased this mine in the Squaw Creek District, is making preparations to resume development work. The company did several hundred feet of work before it closed down.

Spearfish Mining Company.—This company says it will have its new 200-ton cyanide plant in operation by November 10th. The company owns nearly 400 acres of ground. A 20-ton cyanide plant in operation a short distance from the new mill has been successfully treating the same class of ore for two years. The company will have the largest crushing cyanide plant in the Black Hills. The mill will be enlarged as soon as it is demonstrated to be a success. It is expected that 85% of the values will be saved. The ore runs about $8 per ton gold.

Pennington County.

(From Our Special Correspondent.)

British-American Company.—J. M. Sweeney, secretary and treasurer of this company, is in the Hills from the company's headquarters at Detroit. This company is developing a copper claim 5 miles west of Rochford. The company is also working a property in Butcher Gulch, in Lawrence County, where the company says it will erect a 200-ton cyanide plant.

Claire Belle.—Frank Hebert, of Oreville, is negotiating with eastern capitalists for the sale of his Claire Belle Mine, 4 miles southeast of Hill City. The mine is reported to show a ledge of free milling ore 25 ft. wide. A. Tremaine mill is used.

Copper Butte Mining Company.—This company is preparing to sink a shaft deeper on its ground near Custer.

Hornblende District.—There is a great deal of development work going on in this district, 4 miles west of Rochford. The Yellow Bird Mine has been bonded for $25,000 to George B. Best, of Bayfield, Wis. A whim house has been completed and a shaft is down 35 ft. on a 5-ft. free-milling ledge. Thomas Gallagher, of Denver, and Edmund Smith, of Rapid City, have a bond on the Benedict Mine, located on Castle Creek, in the southern part of the district. Shaft is 100 ft. deep, on a 7-ft. vertical of free-milling ore. The lessees have a Fords prospecting mill on Castle Creek. Other claims are: North Star, owned by Alex. McCall and Frank Coughran, residing at the camp, and Chauncy Wood and Charlie Brown, of Rapid City; Ethel, owned by E. A. Grady and Wm. Lapp, Rochford; Standard, owned by E. A. Grady and Nels Oberg, of Rochford; Lost Jim and Lost Nig, owned by Al Fael and N. Pope, of Keystone; Black Eagle, owned by James Christie, and Joe Mitchell, of Hill City, and Tom Blair and Charlie Criswell, of Keystone; Crown, owned by J. D. McNickel and E. A. McNickel, of Rochford, and Sam Scott, of Custer; Victoria, owned by the Victoria Mining Company, of Omaha; Sampson, owned by S. E. Owen, Rochford; Boby Burns, owned by Edward Sheppard, Rochford; Evergreen, owned by Wm. Spencer, Rochford; Averill, owned by W. B. Averill, of Rochford, and others. H. D. Dibble, of Rochford, has recently erected a 20-ton Chilian mill in the center of the camp, for custom ore.

UTAH.

(From Our Special Correspondent.)

Bullion and Ore Shipments.—During the week ending October 27th there were sent forward from the different smelteries 24 cars, 1.030,482 lbs., lead-silver bullion; 5 cars, or 251,317 lbs., copper bullion. In the same week there were shipped from the different camps 129 cars, or 5,739,470 lbs., lead, silver and gold ore and concentrate products and 3 cars, or 131,295 lbs., of copper ore, which were consigned to smelteries outside of the State.

Juab County.

(From Our Special Correspondent.)

Tintic Shipments.—In the week ending October 26th there were billed out from the 3 railroad points of the district 123 cars of ore, 6 cars of concentrates and 2 bars of bullion, which were contributed as follows: Centennial-Eureka 33 cars; Grand Central, 20 cars; Mammoth, 12 cars ore, 6 cars concentrates and 2 bars bullion; Gemini, 12 cars ore; Swansea, 11 cars; Ajax, 6 cars; Uncle Sam & Humbug, 5 cars; Bullion-Beck, 3 cars; Carissa, 5 cars; Godiva, 3 cars; Yankee Consolidated, 2 cars; Shoebridge Bonanza, 1 car.

Bullion-Beck.—From uncoverings on 500-level it is almost certain that the Muldoon ore shoot will give a new life lease to this mine. The mine is said to be in better physical condition than for 2 years past.

Centennial-Eureka.—Arrangements are about consummated to handle the low and medium grade ore products in the Eureka Hill Mill, in which event, it is said, the mill will start on a long campaign at full capacity. Manager Holden states that this ore, carrying values of $14 to $25 a ton, will be made to yield a handsome profit.

Eagle & Blue Bell.—No particulars are yet given out as to the extent of the new ore find.

Mammoth.—"East of the shaft, in virgin territory, an entirely new ore shoot is cut, which will soon make the old Mammoth one of the largest shippers of the district." This statement is made by a man competent to judge who visited the mine this week.

Swansea.—President Holman and Manager Geddes visited the mine on October 26th. Relative to the new ore uncovering they state that, in sinking the winze from 850-level, the pyritic ore body which was followed down changed to carbonates at about 920 ft. depth. This somewhat unusual happening has caused much comment.

Summit County.

(From Our Special Correspondent.)

Anchor.—A close down of the concentrating mill followed a demand of the men for an 8-hour shift. It is expected the mill will be again in commission November 1st under the old conditions.

California.—President W. I. Snyder states that the 5 claims of the company are to be patented without delay and that exploration is to be pushed. This corner of the camp is attracting renewed attention.

Park City Shipments.—For the week ending October 27th the total smelter products marketed through the Mackintosh was 2,846,931 lbs., which represents the shipments from the camp, and was contributed as follows: Silver King crude 801,411 lbs., concentrates 401,320 lbs.; Daly-West, crude 784,050 lbs., concentrates 430,710 lbs.; Ontario, crude 350,050 lbs.; Loring Bros., concentrates 55,040 lbs.; Barnes, concentrates 24,300.

Tooele County.

(From Our Special Correspondent.)

Chloride Point.—The cyaniding plant is to be put out of commission for the winter. All the bright anticipations of the past 12 months have proved disappointments.

Consolidated Mercur.—The management

states that fully 30,000 tons will be mined and milled for October. The clean-up is expected to exceed that of September.

VIRGINIA.

Henrico County.

Richmond Coal Mining and Manufacturing Company.—This company, operating coal mines at Gayton, upon petition of one of the Boston bondholders, has been placed in the hands of President Ware B. Gay as receiver. The Virginia Coal and Coke Company has worked the mine for the past 9 years, as lessee, and in that way is involved in the litigation in the United

Louisa County.

Louisa Pyrites Mining Company.—The noted case of this company against Boyd Smith has been concluded before Judge Nicol. A decree was entered removing Boyd Smith as general manager and substituting the sheriff of Louisa County as receiver, vice R. H. Johnson, resigned. It was also decreed that the entire property be sold within 3 months, which was the desire of Mr. Smith.

WEST VIRGINIA.

Fayette County.

(From Our Special Correspondent.)

Frank Ferguson, of Defiance, O., and J. W. Long and others, of Florida, O., have purchased a piece of coal property on the Hill Estate at the mouth of Bell Creek, on Twenty Mile Creek, about a mile above the mouth. Twenty Mile Creek empties into Gauley River about 6 miles above its mouth. These parties expect to develop the property soon. The No. 2 or gas seam of coal shows up between 5 and 6 ft. of clean coal.

FOREIGN MINING NEWS.

AFRICA.

Rhodesia.

The Rhodesia Chamber of Mines reports the gold output for September at 9,307 oz. crude, which is 830 oz. less than in August, but 3,654 oz. more than in September, 1899. For the nine months ending September 30th the total was 71,637 oz. crude, against 51,067 oz. in 1899, showing an increase of 20,580 oz., or 40.3%. The total this year was equal to 58,742 oz. fine, or $1,214,207.

CANADA.

British Columbia—East Kootenay District.

(From Our Special Correspondent.)

Rossland Ore Shipments.—For the nine months and 25 days ending October 25th the ore shipments from Rossland mines amounted to 166,000 tons, valued at $2,656,000 gross.

North Star Shipments.—The management continues to ship 100 tons daily to the smelter. The St. Eugene so far has continued to ship regularly from 100 to 175 tons daily. The total ore shipments from East Kootenay so far this year amount to 60,000 tons.

British Columbia—West Kootenay District.

(From Our Special Correspondent.)

British Columbia Gold Field.—The Ymir mill is treating about 240 tons daily, valued at $2,400. The shipments from the Athabasca amount to 15 tons daily, valued at $700.

Crawford Bay.—The London Consolidated has 5,000 tons of $40 ore ready for hauling to lake points—about 12 miles—as soon as the road is completed. About 30,000 tons are reported blocked out.

Granite.—The shipments are 30 tons daily, valued at $300.

Hall Mines.—The management is installing a new $30,000 plant in the mine on the 300 and 500 ft. levels. The smelter is heating 200 tons daily. No ore is purchased, owing to the limited smelting facilities.

Highland.—It is stated that Charles Parker has secured the sale of this property to a European company.

Second Relief.—The management so far has shipped 1,600 tons, valued at $75,000.

Slocan Ore Shipments.—The output of ore from January 1st to October 20th amounted to 40,000 tons, valued at $1,000,000, as compared with 58,000 tons, valued at $1,740,000, for the whole of 1899.

War Eagle.—The annual report will be made, it is said, in December. The reported discovery of ore on the 8th level at 1,050 ft. seems to be authentic, though the management is somewhat reticent. It is well known that the main War Eagle vein forks in on the 6th level and that some time ago the shaft was sunk to the 7th level, and that very recently work was started on the 8th level, which struck ore, although the drift on the 7th level was in barren rock. The indications point to the widening of the ore body on the 8th level or rather that the forks again unite.

Yellowstone.—The shipments are 20 tons daily, amounting to $300.

British Columbia—Yale District.

(From Our Special Correspondent.)

Python.—The tunnel at this Kamloop's claim is 200 ft. west of the shaft, and is 190 ft. from the surface. The shaft has been abandoned on account of the water. The ore values run from $2 to $5.

Caribou District.

Caribou Consolidated Hydraulic Mining Company.—The biggest lump of gold ever taken into New York City was received at the United States Sub-Treasury the last week. The lump was in the form of a cone and weighed 9,040 oz. It was valued at $154,765. It represents 68 days washings with 2,750 miner's inches of water at the company's hydraulic mines.

Ontario—Algoma District.

Algoma Central Company.—The company's iron mines have sent out this season nearly 50,000 tons. A year ago last August the country was an undeveloped wilderness, without mines, railways, docks, harbors or any facilities. Next spring the company will bring over from England four 3,000-ton steamships and as much capacity in barges. These, with the 4 steamships now operated, will give a capacity another year for handling nearly 1,000,000 tons. The mine and road will be busy all winter preparing for the expected business of 1901.

Ontario—Sudbury District.

(From Our Special Correspondent.)

The Canadian Pacific Railroad engineers have surveyed for a spur from the main line of the "Soo" branch at Massey to the Orford Company's copper mine, about 3 miles north. The Orford Company's engineers report 50,000 tons of 6% ore in sight at this Salter Township mine.

Wm. McVittie, of Sudbury, is opening a 4-ft. gold vein on the north shore of Wahnapitae Lake. The vein carries from 3 to 6 in. of spar on each wall which carries $40 per ton gold, and a middle band of 2 to 3 ft. of quartz carrying upward of $20 per ton gold. Much of the spar is spotted with native gold.

The first contingent of the railroad's engineers have started a preliminary survey for the Nickel Copper Company's North Range Railroad. Two routes will be gone over before a definite location will be made. In all not less than 40 miles of railroad will be built in order to reach the 10 large properties acquired by the Nickel Copper Company on the North Range.

Nickel Copper Company.—Many local people have been skeptical at the doings and promises of this company until now; but with the purchase of all of the big deposits and many of the prospects on the North Range, followed at once by a contract with the Canadian Pacific for 40 miles of railroad to the mines, the doubters are rapidly coming to the conclusion that this company is to become of importance.

Yukon District.

United States Consul McCook says that the output of gold has been increasing, though the average values of the gravels worked have been steadily declining. The cost of working has been decreasing, which enables properties to be worked that would not have yielded profits in 1897 and 1898. The main causes for the high cost of working at present are as follows:

(1) Combination on the part of merchants and traders to keep up prices.

(2) High cost of transportation from Skagway to Dawson or by sea and up the Yukon River to Dawson.

(3) Bad condition of the roads and consequent excessive freight rates to the mines. At times, it is absolutely impossible to take freight along the main creeks except on mule back. This prevents the moving of machinery and involves delay. The average rate of freight from Dawson to the mines during this summer, when it was lower than it had ever been before, was from 3 to 15c. per lb., according to distance, or from $60 to $300 per ton. However, the Government is making roads on several of the creeks, and these will afford considerable relief.

(4) Unsatisfactory mining regulations, which cause many disputes as to title and heavy cost for settlement. This is due to having regulations here more applicable to other districts, but the Government is now taking steps to reform these matters.

(5) A charge of 10% on the gross output of any claim over $5,000 per year is made. This, with the miner's license, recording fees and other Government charges, prevents the working of a great many mines.

(6) As a large part of the ground worked must be thawed, generally with steam, immense quantities of fuel are required. The hills in the neighborhood of the mines have been denuded of forests, and the cost of fuel is increasing. From $12 to $25 per cord is now paid for wood. The remedy for this difficulty will be a railroad to the principal creeks, to convey wood and coal from Dawson.

Considerable capital has come in from England in a tentative way—probably $3,000,000 or $4,000,000—and the representatives have stated that their people were prepared to put in any quantity that the conditions would justify. Their experience of the past two years, however, has been discouraging, and a number speak of quitting entirely unless changes are brought about.

There have been no discoveries of copper in the immediate neighborhood. Not much attention has been paid to quartz until lately. A good many reports of discoveries have been made, and some prospecting is being done near Dawson and along the Yukon and its branches farther up.

Recently some placer claims have been located in the Stewart River District, over 100 miles from Dawson. Several hundred miners participated in a stampede.

MEXICO.

The famous mine at Taxco de Trinidad, which was owned in the earlier days of the last century by Jose de La Borda, and from which he obtained a fortune said to be over $30,000,000, has been sold to T. H. Arthur an American, for $55,000. The mine has not been worked for over a century.

SOUTH AMERICA.

British Guiana.

(From Our Special Correspondent.)

The gold production in September, on which royalty was paid, was 9,501 oz., against 10,136 oz. last year, showing a decrease of 635 oz. For the 9 months ending September 30th the total was 80,931 oz.

Dutch Giana.

(From Our Special Correspondent.)

The production of gold in the Colony for the 9 months ending September 30th was: Surinam, 265.639 kgs.; Para, 0.173; Corantyn, 0.011; Saramacca, 117,660; Marowine, 26,506; Lawa, 224,061; total, 634.050 kgs.

French Guiana.

(From Our Special Correspondent.)

The gold production for August was 208 kgs. For the 8 months ending August 31st the total was 1,525 kgs. gold.

COAL TRADE REVIEW.

New York. Nov. 2.

Anthracite.

The hard coal market during the week has been in a peculiar state. Producers and consumers realized that coal is not to be as cheap this winter as last, but the weather has been mild and the knowledge that the strike is over has loosened up things generally. The net result is that while some sizes of coal are wanted very badly at all points and all sizes are wanted at some points, there has not been a very great rush to buy. As noted last week, small yards at inland points are in most need of coal and will be supplied first. Considerable coal must go up the lakes to bring supplies there to normal, and the shoal water ports down East will also want coal in a hurry to stock up for the winter. Consumers at points most easily reached will therefore have to want some time.

In the West the demand at Chicago is only fair. The cessation of iron ore shipments on a large scale by many Lake Superior mines will make light freights down the lakes; as a result rates on coal from Buffalo are likely to advance considerably and coal at the head of the lakes will be considerably higher than last winter in all probability. At Buffalo the prices on cars are: Broken, $4.75; egg, stove and chestnut, $5. At Chicago, Milwaukee and Lake Superior ports: Broken, $5.75; egg, stove and chestnut, $6. In the East demand for the steam sizes is very great. It will take some time to satisfy this demand. The mines will hardly be in smooth running order for a week yet, and small consumers will have to wait longer.

The new prices for free burning white ash, f. o. b. New York Harbor ports, are: Broken, $4; egg, stove and chestnut, $4.50; pea, $3; buckwheat, $2.50. The quotations for prepared sizes are 50c. above the July circular prices.

Bituminous.

The Atlantic seaboard soft coal trade is somewhat easier, owing to improved car supply at the mines. That car supply should improve when the anthracite miners' strike was called off seems very peculiar. It has been suggested that this is because certain railroads tried to restrict shipments of soft coal during the strike, fearing a permanent loss of anthracite tonnage. At any rate, bituminous producers are now getting very nearly the whole number of cars they call for. Consumers have little trouble in buying all of the lower grades of coal they need, and the higher grades are in better supply.

In the far East there is still considerable demand. The shoal water ports are getting the coal they want as fast as producers can give it to them. East winds, however, have kept a large number of shoal water port vessels back, thus restricting receipts by consumers to a marked degree. Along Long Island Sound trade is still large, though much easier, even for the better grades. The demand for coal still exceeds the amount received by consumers. New

York Harbor trade is now in a pretty easy condition and consumers seem to have fair supplies on hand, though educated by past experiences to giving timely notice of wants. All-rail trade is taking a large amount of coal. but this trade, too, is easy. There is little inquiry from abroad, buyers having apparently made connections on this side. Export shipments are fairly regular.

Transportation from mines to tide is good on the Pennsylvania, poor on the Baltimore & Ohio and fair on the Chesapeake & Ohio and Norfolk & Western. Car supply at the collieries runs up to 90% of the demand. In the coastwise vessel market, adverse winds have kept many vessels from reporting at receiving ports. Large vessels are now in good supply, while small vessels are very scarce. We quote current rates from Philadelphia as follows: Providence, New Bedford and the Sound, 70c.; Boston, Salem and Portland, 70c.; Wareham and Bath, 80c.; Lynn, 85@90c.; Newburyport, 95c.; Portsmouth, 75c.; Bangor, $1 Dover, $1.25 and towages; Gardiner, $1.05 and towages. Rates from the further lower ports are 10c. above these rates.

Speculative prices on coal have fallen. Best grades can be bought as low as $2.90 f. o. b. shipping ports.

Birmingham, Ala. Oct. 29.

(From Our Special Correspondent.)

Coal operators in Alabama state that the demand for coal is greater than the supply. As an incentive to keep the miners at work hard operators are offering premiums. Col. T. H. Aldrich, of the Southern Cahaba Mining Company and of the Brilliant Coal Company, the latter concern operating the mines in Marion County which supply the Illinois Central Railroad, states that the miners at the Brilliant mines are paid a premium of 5c. per ton on each ton over 65 per month in addition to the regular union rates.

The first coal has been received from the Underwood Mining Company's mines in Blount County. The rails are down on the first 10 miles of the Oneonta & Attalla Railroad, from Oneonta to Walnut Grove, near the place the mines are located, and just as soon as the road is ballasted regular traffic will be established. A large tipple is being constructed at the mines and the production will be 300 or 400 tons a day within the next 3 weeks.

Chicago. Oct. 30.

(From Our Special Correspondent.)

Anthracite Coal.—Weather conditions have been very much against any extended activity, a summer temperature having kept buying down and the business of the week was very small. Inquiry is light and the demand for out-of-town is but small. There is not a great deal of hard coal in the market at present and this will prevent any material reduction from present circular prices, which are $5.75 for grate and $6 for egg, stove and nut.

Bituminous coal is in poor demand, the weather having about wiped out business. Buying is in small quantities. Prices have fallen considerably, and despite that fact no heavy contracts are being placed. There is a quantity of soft coal in this market and once again demurrage charges face shippers.

Pittsburg. Nov. 1.

(From Our Special Correspondent.)

Coal.—There was a better supply of railroad cars this week and the Pittsburg Coal Company is rapidly catching up in its deliveries. All the mines of the railroad combination are in full operation and are likely to run steadily until the end of the scale year, April 1st, 1901. But few of the mines of the Monongahela River Consolidated Coal and Coke Company, the river coal combination, are in operation on account of the low water and the inability to secure empty coal boats and barges.

Connellsville Coke.—The production and shipments of coke last week showed gains over the preceding week. Prices are firm and will likely continue so during the balance of the year. It is believed here that prices will advance after January 1st. Standard Connellsville furnace coke is quoted at $2 and foundry at $2.25@$2.50 a ton. Furnace coke from outside ovens is firm at $1.50 and foundry at $1.75@$2. Of the 20,762 ovens in the Connellsville region 14,232 are active and 6,530 are idle. The production for the week was 147,248 tons, a gain of 1,117 tons. The shipments aggregated 7,876 cars, distributed as follows: To Pittsburg and river tipples, 3.032 cars; to points west of Pittsburg, 3,540 cars; to points east of Connellsville, 1,304 cars. This was an increase of 292 cars.

Foreign Coal Markets.

Messrs. Hull, Blyth & Company quote as follows, under date of October 20th: Best Welsh steam coal, $5.75@$6; seconds, $5.04@$5.28; thirds, $4.68@$5.04; dry coals, $5.40@$5.64; best Monmouthshire semi-bituminous, $4.60@$5.04; seconds, $4.44@$4.80; best small steam coal, $3.24@$3.36; seconds, $3@$3.24; other sorts, $2.64. These prices for Cardiff coal are all f. o. b. Cardiff, Penarth or Barry; while those for Monmouthshire coals are all f. o. b. Newport, exclusive of wharfage, and are for cash in 30 days, less 2½% discount.

A decline has taken place in outward freight rates in all directions. Some rates quoted are: Gibraltar, $2.16 per ton; Malta, $2.10; Algiers, $2.35; Marseilles, $2.55; Genoa, $2.52; Naples, $2.58; Port Said, $2.82; Las Palmas, $2.22; St. Vincent, $2.34; Ste. Lucia, $2.58; Buenos Aires, $4.32; Rio Janeiro, $4.68; Santos, $4.92.

In France prices continue firm and there is still a scarcity of both coal and coke.

Current quotations for best steam coal, f. o. b. cars at mines in the Nord or Pas-de-Calais, are: Washed lump, $7 a metric ton; ordinary lump, $6.80; nut, $6.50; run-of-mine, $4.60@$4.75. Coal of second quality can be had for $4, run-of-mine.

In Germany there is nothing new in the situation. The complaints of manufacturers about the restriction of output by the syndicates seem to have little effect. Brokers at Hamburg and Bremen report difficulty in securing as much coal from England as they need.

Contracts for export coal, chiefly to French and Mediterranean ports, are still being placed, and inquiries are frequent. A statement of the exports for the nine months ending with September will be found on another page. Charters are few just now, owing to scarcity of vessels.

Ocean freight rates from Atlantic ports to Mediterranean and Baltic ports are 20@22s. ($5@$5.50). A charter is noted from Norfolk, Va., to Manila at $9.50, November sailing, which is $1.50 more than a few weeks ago.

SLATE TRADE REVIEW.

New York. Nov. 2.

The list of prices per square for No. 1 slate standard brand f. o. b. at quarries in car-load lots, is given below:

Size, inches	Monson or Br'nville.	Bangor.	Bangor Ribbon.	Alb'n, or Jackson Bangor.	Cha p'n Keya'ne	Peach Bottom.	Sea Gr'n.	Unfad'g Green.	Red.
	$	$	$	$	$	$	$	$	$
24 x 14	6.50	3.50	3.00	3.00	.	5.10	2.90	.....	.....
24 x 12	6.60	3.50	3.00	3.00	3.89	5.25	2.90	3.75	.....
22 x 12	6 60	3.50	3.25	3.00	....	5.25	2.90	3.75	.....
22 x 11	6 50	3.75	3.25	3.00	4.00	5.25	2.90	4.00	.....
20 x 12	6 90	3.75	.....	3 00	.....	5.25	2.90	3.75	.....
20 x 11	6.80	.....	.....	3.25	.	5.25	2.90	....	.....
20 x 10	6.80	4.25	3.50	3.25	4.00	5.35	2.90	4.25	10.50
18 x 12	6.80	3.75	.....	3.00	.....	5.25	2.90	3.50	.....
18 x 11	7.00	....	.....	....	.....	...	2.90	3.75	.....
18 x 10	7.00	4.25	3.50	3.25	4.00	5.35	2.90	4.00	10.50
18 x 9	7.00	4.50	3.50	3.25	4.00	5.35	2.90	4.25	10.50
16 x 12	6.80	3 75	...	3.00	.....	.....	2.85	3.50	....
16 x 10	7.00	4.25	3.50	3.25	4.00	5 25	2.85	4.00	10.50
16 x 9	7.00	4.25	.....	3 25	4 00	5.35	2.85	4.25	10.50
16 x 8	7.00	4 50	3.50	3.25	4.25	5.35	2.85	4.25	10.50
14 x 10	6 60	3.75	3.25	3.00	.....	5 25	2.70	3.75	10.50
14 x 9	6.50	....	.....	.....	.....	.....	2.70	3 75	10.50
14 x 8	6.60	3.75	3.25	3.00	4.00	5.10	2.70	4.25	10.50
14 x 7	6.40	3.75	3.25	3.00	3.75	5.10	2.50	4.25	10.50
12 x 10	5.75	....	....	....	..	...	2.50	3.25	....
12 x 9	5.60	....	.....	....	..	....	2.50	3.25	....
12 x 8	5.50	3.50	.....	2.85	.....	4 85	2.50	3.50	9.00
12 x 7	5.00	3.25	.....	2.85	3 25	4.85	2.25	3.50	9 00
12 x 6	4.80	3 25	....	2.85	3 25	4.75	2.25	3 50	8.50

A square of slate is 100 sq ft. as laid on the roof

Trade is quiet and prices are practically unchanged. Shipments from Slatington and Walnutport, Pa., in the week ended October 25th, were 5,313 squares roofing slate; 384 cases school slates and 482 crates blackboards.

The exports of slate from the United States in the 9 months ending September 30th were valued at $70,730, making $632,647 for the 9 months, as against $989,986 in the corresponding period last year, showing a decrease in 1900 of $357,339, or 36%. The exports of roofing slate in the 9 months this year aggregated 97,267 squares, showing a falling off from last year of 99,421 squares. The total value of mill stock shipped in 1900 was $103,463, against $108,492 in the same 9 months last year; a decrease of $5,029.

IRON MARKET REVIEW.

New York, Nov. 2, 1900

Pig Iron Production and Furnaces in Blast.

Fuel used	Week ending Nov. 3, 1899. F'ces	Tons.	Week ending Nov. 2, 1900. F'ces	Tons.	From Jan.,'99. Tons.	From Jan.,'00. Tons.
An' racite & Coke.	241	277,700	182	215,550	10,956,829	11,719,789
Charcoal.	25	6,450	31	8,325	228,397	316,835
Totals..	266	284,150	213	223,875	11,185,226	12,036,624

The chief feature of the week has been increased buying of pig iron. This is reported from all the markets, and the aggregate of the orders placed must have been very large. In consequence of this there has been a general stiffening of prices, as is shown by our local reports.

In steel the chief topic is a meeting now being held in New York, at which all the leading makers are represented. The meeting is private and those present decline to furnish any information. It is understood that prices of plates are under discussion, but there are also reports of an intention to re-establish the old billet pool.

Finished material shows better demand and there is no doubt of a large business, especially in bridge steel and ship plates.

The export trade reports continue very good. Contracts for a number of bridges for the Uganda Railroad in Africa have been placed here. An interesting item is that the American Bridge Company has taken a contract to build new shops at Bremen, Germany, for the North German Lloyd Company.

Birmingham, Ala. Oct. 29.

(From Our Special Correspondent.)

The pig iron market is quiet now, but prospects seem brighter. The furnacemen all seem anxious for the national elections to pass. The production is kept up, and all the surplus iron is going to the yards. Quotations seem to be stationary at low mark. Shipments are not heavy and the export movement is far from being what it was this time last month.

The establishment of another storage yard in this district is reported, with Mr. H. McCormack in charge. The Tennessee Coal, Iron & Railroad Company will be interested in it.

Mr. George Hughes, manager of the American Pig Iron Storage Warrant Company in this district, announces that there is not much iron going in or out of the yards under his management, indicating that the furnace companies are able to carry their iron.

The demand for finished iron is not lively and as a consequence some of the departments in the Birmingham rolling mills, operated by the Republic Iron and Steel Company, have shut down temporarily. The Gate City rolling mills are in full operation. The Bessemer rolling mills have been idle for more than a week on account of a sympathy strike ordered by the Amalgamated Association, for the strikers at the Ensley steel plant. Efforts are being made to settle both strikes next month.

But 2 of the 12 furnaces at the steel plant at Ensley have been in operation for the last month or two. This week 2 other furnaces will be put in blast.

The following are the quotations that are given for pig iron: No. 1, foundry, $11.75@$12; No. 2, $11.25@$11.75; No. 3, $10.50@$11.25; No. 4, $9.25@$10; gray forge, $9@$9.50; No. 1, soft, $11.75@$12; No. 2, $11.50@$11.75.

Buffalo. Oct. 31.

(Special Report of Rogers, Brown & Co.)

The large amount of business booked during the past week has proved a decided and much needed tonic to the market. There has been no such volume of pig iron orders in the same length of time since the activities of about one year ago. Its effect has been to clip off some of the irregularities of a very ragged and uneven market and to suggest backbone to distracted sellers who feared to see business passing by and yet knew they could not afford to take it. The prices were low and several important furnace interests, after taking on a few of these backlogs, refused to enter further orders at the same figures. We quote below on the cash basis, f. o. b. cars Buffalo: No. 1 Strong Foundry Coke Iron, Lake Superior ore, $15; No. 2, $14.50; Southern Soft, No. 1, $15; No. 2, $14.50; Lake Superior Charcoal, $18; Coke Malleable, $14.50.

Chicago. Oct. 30.

(From Our Special Correspondent.)

Pig Iron.—Consumers are all in the present market, either as actual purchasers or intending ones, making the pig iron situation a most encouraging one. Inquiries for 50,000 tons or more are known and others coming in each day. A great deal of this business is likely to be placed soon, but prices are looked at eagerly, and any slight advance would doubtless drive many to actual buying. Prices are being maintained by the larger furnace companies and there is very much less disposition on the part of the smaller concerns to sell at anything but top prices. We quote: Lake Superior charcoal, $18@$18.50; Local Coke Foundry, No. 1, $15@$15.50; No. 2, $14.50@$15; No. 3, $14@$14.50; Local Scotch, No. 1, $15@$16; Ohio Strong Softeners, No. 1, $16@$16.50; Southern Silvery, according to Silicon, $15.50@$16.50; Southern Coke, No. 1, $15@$15.35; No. 2, $14@$14.35; No. 3, $13.50@$14.10; Southern, No. 1, soft, $15@$15.36 No. 2, soft, $14@$14.35.

Philadelphia, Pa. Nov. 1.

(From Our Special Correspondent.)

The week preceding a Presidential election is a poor one to look for important news in the iron trade. Pig iron transactions, it may be correctly said, are constantly taking place, but all are small and none for remote delivery, unless exception is had with two or three special hands, which are absorbed by a few special buyers. The average brands are unchanged in price. There are signals in some quarters of a general lifting up of prices which our people here in the East are not overlooking. Forge iron is dull because the time has not arrived for the making of new contracts. Bessemer is quiet awaiting the new price to be made soon. Some inquiries are now being made for Alabama iron,

but as to prices and sales nothing of interest can be given until next week.

Merchant Bars.—The stores have done a good retail business this week for near-by needs. The stocks have been run down and a reassorting will be made as quickly as the iron can be shipped. The mill men report a good demand in a general way, especially Eastern mills.

Skelp.—Further orders are arriving at good prices.

Pipes and Tubes.—Representatives of these specialties say that within the past few days orders that had been hanging fire were placed. The prices named were strong; on some new business taken yesterday the figures were fractionally higher.

Sheet Iron.—The office people report an increased retail demand at mills and stores for immediate delivery.

Plates.—There is not much trouble in getting $2 to $3 per ton more for the small orders that our mills have been taking for the past week or two. The report to-day is that a better demand is now on, partly created by the possibility of better prices as soon as everybody else concludes to order as is probable after next Tuesday. Prompt deliveries are $2 higher than a month ago.

Structural Material.—The shipyards have been heavy buyers, and will buy more largely as soon as certain negotiations for coal transports are closed. The bridge-builders have practically closed negotiations for an unknown amount of steel, but something definite is to be made public next week, the mill people say. The capacity is pretty well taken up. The agitations in favor of a reduction in prices does not make much impression on intending buyers.

Steel Rails.—The Pennsylvania Railroad has awarded its 144,000 tons between the Carnegie Steel Company, 38,000; Cambria, 28,000; Federal Steel, 24,000; Pennsylvania Steel Company, 24,000; National Steel Company, 18,000; Lackawanna, 12,000 tons. There is a very strong feeling expressed in the trade against the policy of keeping rails at a price which scares off buyers, and there are rumors of a break to $22, but it is impossible to get any reliable information.

Old Rails.—The holders of old rails are refuseing all offers.

Scrap.—Heavy steel scrap goes at exceptionally good prices as fast as it can be delivered.

Pittsburg, Pa. Oct. 31.

(From Our Special Correspondent.)

An increasing demand for iron and steel products and raw material and a stiffening of prices the week preceding a Presidential election is the unusual feature of the markets this week. Bessemer pig iron prices ranged from $13.50 to $14 a ton, Pittsburg, a few small lots selling at the later figure, some at $13.75 and the bulk at $13.50. No sales at these prices were made beyond January 1st. Foundry and forge iron is firmer and some sales were made at slightly higher prices than ruled last week. Foundrymen seem to realize now that bottom prices have been reached and are making some heavy purchases. The sales this week were almost as large as last week. The increased demand for Bessemer steel billets noted last week continues and the sales are larger this week, with a firmer price. The minimum price is $18 and it is not believed that a lower rate could be had even for a most desirable order. An agreement was reached during the week on steel plates by leading producers and the price fixed for tank plates was 1.25c., an advance over the highest quotations of last week of $2 a ton. The demand for steel bars continues and a heavy tonnage was placed this week. Prices are firm. There is a good demand for sheets, but prices remain low. The Lake Shore & Michigan Southern Railroad is reported to have placed a contract with the Carnegie Steel Company for 25,000 tons of steel rails at the pool price of $26 a ton. Several other orders for steel rails are reported to have been received by the local company. All the steel mills in this section are busy and are likely to remain in steady operation for some time. The big New Castle plant of the American Tin Plate Company was started yesterday. It is a 30-mill plant and is the largest in the country. The Youngstown Works of the National Tube Company were put in operation on Monday, the demand for wrought iron pipe having revived. This plant was formerly owned by the American Tube and Iron Company.

Pig Iron.—The sales of Bessemer pig iron this week aggregated 5,000 tons, the price ranging from $13.50 to $14, Pittsburg, the deliveries to run through the last quarter. Sales of foundry and forge iron this week amounted to about 6,000 tons. No. 2 foundry sold at $13,50@$14 and gray forge at $12.75@$13, an advance of 25c. a ton over last week.

Steel.—The Bessemer steel billet market is more active than it has been at any time for several months. Several 500-ton lots, probably 5,000 tons in all, were sold this week at $18 a ton. A higher price is expected to rule next week. Steel bars are firm, with no change in the quotations of last week of 1.20@1.25c. Plates were advanced during the week and the minimum price for tank plates this week is 1.25c.

Ferro-manganese.—There is no change in price, 80% domestic still being quoted at $75.

New York. Nov. 2.

The iron market is in a state of suspense just at present. Export trade is suffering by the reductions in prices quoted by foreign manufacturers and furnacemen.

Pig Iron.—The demand is stronger but a better market is expected in a couple of weeks. Export orders have fallen off. We quote for Northern irons, tidewater delivery: No. 1 X foundry, $16,25@$17; No. 2 X, $15.25@$15.75; No. 2 plain, $14.50@$15; gray forge, $14@$14.50. For Southern irons on dock, New York, No. 1 foundry, $15.50@$15.75; No. 2, $14.50@$14.75; No. 3, $13.50@$13.75; No. 4, $13@$13.50; No. 1 soft, $15.50@$15.75; No. 2, $14.25@$14.50.

Bar Iron and Steel.—Prices are unchanged. We quote common bars at 1.20@1.25c. for large lots on dock; refined bars, 1.35c.; soft steel bars, 1.20c.

Plates.—Mills have put quotations up a bit. Demand is light. We quote for large lots at tidewater: Tank, ¼-in. and heavier, 1.35@1.45c.; shell, 1.45c.; flange, 1.60c.; marine, 1.65@1.70c.; universal, 1.35c.

Steel Rails and Rail Fastenings.—Some sales to domestic buyers are reported, nominally at quoted prices. Export business shows up better than a few weeks ago. Light rails are selling between $25@$30. Standard sections are quoted at $26. Splice bars are 1.25@1.35c.; spikes, 1.45c.; fish plates, 1.25c.; bolts, 2.05@2.25c.

Structural Materials.—One or two good-sized contracts have been taken recently, generally demand is light. We continue to quote large lots at tidewater: Beams, 1.65c.; channels, 1.65c.; angles, 1.30c.; tees, 1.70c.; zees, 1.65c.

METAL MARKET.

New York. Nov. 2.

Gold and Silver.

Gold and Silver Exports and Imports
At all United States ports in September and year.

Metal.	September.		Year.	
	1899.	1900.	1899.	1900.
GOLD.				
Exports	$618,995	$794,962	$32,877,838	$52,574,745
Imports	2,593,894	3,977,359	34,268,421	36,104,916
Excess	I. $1,974,899	I. $3,182,397	I. $1,390,583	E.$16,469,829
SILVER.				
Exports	3,622,041	5,723,708	38,738,431	47,501,891
Imports	2,376,846	4,140,675	22,724,095	30,151,150
Excess	E. $1,245,195	E. $1,583,033	E.$16,014,336	E.$17,350,741

These figures include the exports and imports at all United States ports, and are furnished by the Bureau of Statistics of the Treasury Department.

Gold and Silver Exports and Imports, New York

For the week ending November 1st, 1900, and for years from January 1st, 1900, 1899, 1898, 1897.

Period.	Gold.		Silver.		Total Excess, Exp. or Imp.
	Exports.	Imports.	Exports.	Imports.	
We'k	$7,800	$612,271	$756,168	$151,774	I. $ 76
1900..	36,639,003	5,452,143	33,196,641	4,082,425	E. 60,301,070
1899..	11,646,120	13,602,747	24,231,061	3,209,233	E. 19,065,217
1898..	7,231,699	95,568,216	28,710,023	2,589,951	I. 62,135,438
1897..	48,149,031	13,376,167	33,492,985	2,095,981	E. 66,169,649

Exports of gold were to the West Indies; of silver to London. Imports of gold were from London chiefly; of silver from Mexico and South America.

The United States Assay Office in New York reports the total receipts of silver at 73,000 oz. for the week. Total since January 1st, 4,127,000 oz.

Average Prices of Metals per lb., New York

Month.	COPPER.		TIN.		LEAD.		SPELTER.	
	1900.	1899.	1900.	1899.	1900.	1899.	1900.	1899.
Jan	15.58	14.26	27.07	22.48	4.68	4.18	4.65	5.34
Feb.	15.78	17.02	30.58	24.20	4.675	4.49	4.64	6.28
March	16.29	16.35	32.90	23.82	4.675	4.37	4.60	6.31
April	16.76	17.13	30.90	24.98	4.675	4.31	4.71	6.67
May	16.34	17.20	29.37	25.76	4.181	4.44	4.53	6.88
June	15.75	16.89	30.50	25.85	3.901	4.43	4.29	5.98
July	15.97	17.10	33.10	29.63	4.030	4.52	4.28	5.82
August	16.35	17.42	31.28	31.53	4.250	4.57	4.17	5.65
Sept.	16.44	17.34	29.42	32.74	4.350	4.58	4.11	5.50
October	16.37	16.94	28.54	31.99	4.350	4.575	4.15	5.32
Nov.	.....	16.49	....	28.51	.....	4.575	.....	4.64
Dec	.....	15.85	.....	25.88	.....	4.64	....	4.66
Year	.....	16.67	....	25.12	.....	4.47	.....	5.75

Commencing with March 17th, the prices given in the table for copper are the averages for electrolytic copper; this is the case for both 1899 and 1900. The average price for Lake copper for the year 1899 was 17.61c. For January, 1900, the average price of Lake copper was 16.33c.; for February, 16.08c.; for March, 16.55c.; for April, 16.94c.; for May, 16 55c.; for June, 16c.; for July, 16.16c.; for August, 16.58c.; for September, 16.69c.; for October, 16.64c.

Prices of Foreign Coins.

	Bid.	Asked.
Mexican dollars	$ .50⅝	$ .51½
Peruvian soles and Chilean pesos	.46	.47½
Victoria sovereigns	4.85	4.88
Twenty francs	3.85	3.88
Twenty marks	4.74	4.80
Spanish 25 pesetas	4.78	4.82

Imports and Exports of Metals.

Port.	Week, Oct. 31.		Year 1900.	
	Expts.	Impts.	Expts.	Impts.
New York. (N. Y. Metal Exchange.)				
Aluminum.....long tons	.....	.....	111	87
Antimony ore... " "	.....	.....	.....	2,352
" regulus.. " "	.....	.....	.....	1,670
Chrome ore..... " "	.....	.....	.....	1,500
Copper, fine ..... " "	1,101	252	87,639	16,585
" matte.. " "	215	.....	3,686	246
" ore. .... " "	.....	.....	.....	43,882
" ash..... " "	.....	.....	....	98
Ferro-Chrome.. " "	.. ..	....	.....	31
Ferro-mangan'se " "	.....	.....	.....	710
Iron ore .... " "	.....	3,951	.....	21,477
" pig, bar, rod " "	440	50	15,452	6,125
" pipe..... " "	131	.....	12,143	157
" plates, sheets " "	.. ..	....	1,016	18
Lead. .... " "	949	1,825	66,8?5	57,464
" ore.. ..... " "	.....	....	.....	9,700
" dross ..... " "	.....	.....	.....	24
Manganese, ore. " "	.....	131	.....	9,492
Metals, old, scrap " "	260	.....	4,160	6,082
Composition.. " "	.....	.....	2,920	185
Nails. ..... " "	144	.....	16,9 4	.....
Nickel ..... " "	54	.....	2,070	108
" ore, matte " "	.....	.....	.....	5,393
Railr'd material. " "	24	20	5,265	5,603
Rails, old..... " "	316	.. ..	7,029	518
Spiegeleisen..... " "	.....	.....	.....	3,377
Steel bars, plates " "	3,090	233	41,108	15,267
" rails..... " "	2,858	..	51,758	18
" wire..... " "	606	.....	24,633	78
" not speci'd. " "	808	58	10,707	2,475
Tin ..... " "	.. ..	459	5	21,983
" and black plates " "	.....	354	.....	32,011
Zinc..... " "	.....	.....	675	386
" dross..... " "	2?	.....	701	50
" ashes, skim " "	24	.....	992	20
" ore..... " "	.....	.....	11,668	.....
Baltimore. (Special Correspondence).				
Chrome ore.....long tons	.....	.....	.....	3,730
Copper, fine..... " "	816	241	34,034	4,364
" matte... " "	.....	....	.....	
Ferro-manganese " "	.....	.....	.....	155
Iron pig, bar, etc. " "	.....	.....	4,685	22,402
" ore..... " "	.....	4,528	.....	360,570
" pyrites..... " "	.....	.....	.....	33 755
Manganese ore.. " "	.....	.....	.....	117,323
Metals, old & Rails " "	.....	.....	568	2
Nails ..... " "	.....	.....	1,361	.. ....
Pipe, iron & steel " "	37	.....	5,429	.....
Silicon ..... " "	.....	.....	.....	85
Spiegeleisen..... " "	.....	.....	.....	778
Steel, bars, etc.. " "	445	80	36,664	3,853
" wire ..... " "	22	8	919	146
" rails..... " "	4,893	...	73,685	.....
Tin..... " "	.....	.....	.....	295
" and blackplates " "	....	169	.....	2,804
Philadelphia. (Week ending Oct. 19).				
Antimony ..long tons	.....	.....	.. ....	14
Chrome ore... ... " "	....	.....	.....	3,650
Copper, fine..... " "	.....	.....	3,894	.....
" ore ..... " "	426	4,3?0	..	35,595
" pyrites.. " "	.....	.....	.....	100
Iron, pig..... .. " "	.....	.....	1,355	3,827
" ore..... " "	.....	4,500	13,120	246,220
" pyrites ..... " "	.. ....	.....	...	87,155
Manganese ore.. " "	.....	.....	...	76,900
Spiegeleisen..... " "	.....	.....	...	4,153
Tin..... " "	.....	35	....	623
" and black plates " "	.....	98	.....	2,524
Zinc..... " "	.....	.....	67	.....
" ore..... " "	.....	.....	4,307	.....

Total United States.

Articles.	Sept. 1900.		Year, 1900.	
	Expts.	Impts.	Expts.	Impts.
Antimony.. .....long tons	.....	202	.....	1.208
" ore.... " "	.....	80	.....	1,753
Copper, in all forms..... " "	10,425	11,785	126,151	54,394
Iron, pig & bar.. " "	42,888	4,876	168,432	59.542
" ore..... " "	16.259	59,995	37,026	697,297
Iron & steel plates " "	4,539	105	33,728	4,793
Iron & steel rails " "	33,132	2	294,411	991
" " wire " "	3,880	154	59.155	1,338
Lead, in all forms " "	9,004	9,362	65.219	74,636
Manganese ore and oxide..... " "	.....	21,193	3	247,548
Nickel " & matte " "	276	.....	2,030	.....
Nails, cut..... " "	761	.....	8,542	.....
" wire ..... " "	968	.....	22,924	.....
Quicksilver..... " "	31	.....	277	.....
Steel, billets, rods, etc..... " "	30,155	2,574	103,271	26,303
Tin..... " "	35	3,310	393	24,482
" & black plates " "	9	5,110	520	50,210
Zinc .... " "	964	104	18,299	765
" ore .... " "	5,199	.....	29,965	...

Import Duties on Metals.

The duties on metals under the present tariff law are as follows: Antimony, metal or regulus, ¾c. a lb. Lead, 1½c. a lb. on lead in ores; 2½c. per lb. on pigs, bars, etc.; 2½c. on sheet, pipe and manufactured forms. Nickel, 6c. per lb. Quicksilver, 7c per lb. Spelter or zinc, 1½c. per lb. on pigs and bars. 2c. on sheets, etc. Copper, tin and platinum are free of duty.

Average Prices of Silver per oz. Troy.

Month.	1900.		1899.		1898.	
	Lond'n Pence.	N. Y. Cents.	Lond'n Pence.	N. Y. Cents.	Lond'n Pence.	N. Y. Cents.
January...	27.30	59.30	27.42	59.36	26.29	56.77
February..	27.49	59 76	27.44	59.42	25.89	56.07
March.....	27.59	59.81	27.48	59.64	25.47	54.90
April.....	27.41	59.59	27.65	60.10	25.95	56.02
May.....	27.56	59.96	28.15	61.23	26.31	56.98
June.....	27.81	60.42	27.77	60.43	27.09	58.61
July.....	28.23.	61.25	27.71	60.26	27.32	59.06
August....	28.13	61.14	27.62	60.00	27 48	59.54
September	28.85	62.63	27.15	58.89	28.05	60.68
October ..	29.58	63.83	26.70	57.98	27.90	60.42
November	.....	.....	27.02	58.67	27.93	60.60
December.	.. ....	.....	27.21	58.99	27.45	59.42
Year.....	.....	.....	27.44	59.58	2.76	58.20

The New York prices are per fine ounce; the London quotation is per standard ounce, .925 fine.

Financial Notes of the Week.

Business continues in suspense and there is little doing, as is generally the case in the week before election. No further gold imports are noted, though a considerable movement is expected before the end of the year.

In the absence of India Council purchases silver has shown no tendency to advance. Local orders have consumed the offerings and there is no special feature in the market.

The statement of the United States Treasury on Wednesday, October 31st, shows balances in excess of outstanding certificates as below, comparison being made with the statement of the corresponding day last week:

	Oct. 24.	Oct. 31.	Changes.
Gold.....	$86,727,862	$92,551,289	I. $5,>23,427
Silver	5,568,304	6,812,343	I. 1,244,039
Legal tenders.....	12,738,094	11,506,670	D. 1,231.424
Treas. notes, etc...	78,966	660,122	I. 5×1.156
Totals.....	$105,113,226	$111,530,424	I $6,417,198

Treasury deposits with national banks amounted to $97,188,925, showing an increase of $269,502 for the week.

The statement of the New York banks—including the 66 banks represented in the Clearing House for the week ending October 27th—gives the following totals, comparison being made with the corresponding weeks in 1899 and 1898:

	1898.	1899.	1900.
Loans and discounts.	$667,232,600	$695,777,000	$793,384,600
Deposits	761,574,200	761,635,500	843,391,500
Circulation.....	15.538,500	15,815,400	30,560,000
Reserve:			
Specie	161,346.500	144 336,900	158,933,700
Legal tenders.....	55,138,600	49,110,500	57,946,000
Total reserve.....	$216,485,100	$193,447,400	$216,879,700
Legal requirements...	190,393,550	190,408,875	210,847,875
Balance, surplus....	$20,091,550	$3,038,525	$6,031,825

Changes for the week, this year, were increases of $128,700 in circulation, $2,279,500 in specie, $44,300 in legal tenders, and $3,084,125 in surplus reserve; decreases of $4,464,600 in loans and discounts, and $3,041,300 in deposits.

The following table shows the specie holdings of the leading banks of the world at the latest dates covered by their reports. The amounts are reduced to dollars, and comparison is made with the holdings at the corresponding date last year:

Banks.	1899. Gold.	1899. Silver.	1900. Gold.	1900. Silver.
N.Y. Ass'd..	$144.336,900	.....	$158,933,700	....
England....	168,833,585	....	164,012,470	.....
France.. ...	378,157,570	$234,168,335	458,578,060	$222,872,015
Germany....	120,430,000	62,040,000	130,665,000	67,305,000
Spain..	67,955,000	68,880,000	68,445,000	83,020,000
Aus.-Hun ..	153.820.000	52.435,000	189 315,000	48 880,000
Neth'l'ds....	14,475,000	29,255,000	24,350,000	27,920,000
Belgium....	15,095,000	7,545,000	14,245,000	7,125,000
Italy.....	77,650,000	7,;80,000	77 060,000	8,370.00
Russia.....	429,365,000	22,140,000	352,660,000	30,780,000

The returns of the Associated Banks of New York are of date October 27th, and the others are of date October 26th, as reported by the "Commercial and Financial Chronicle" cable. The New York banks do not report silver separately, but the specie carried is chiefly gold coin. The Bank of England reports gold only.

Shipments of silver from London to the East for the year up to October 18th, 1900, are reported by Messrs. P ixley & Abell's circular as follows:

	1899.	1900.	Changes.
India.....	£4,377,025	£4,980,807	I. £603,782
China.....	1,058,163	1,763,466	I. 705,303
The Straits.....	226,508	683,316	I. 456,808
Totals.....	£5,661,696	£7,427,589	I. £1,765,898

Arrivals for the week, this year, were £372,700 in bar silver from New York and £5,000 from the West Indies; total, £377,700. Shipments were £186,000 in bar silver to India.

Indian exchange is steady at 15.94d. per rupee, with a good demand for Council bills in London. A temporary suspension of silver buying on India account has had very little effect, since it is well understood that the Government has had to give way to the necessities of the situation and must buy more silver for coinage, in order to keep up the circulation supply.

Other Metals.

Daily Prices of Metals in New York.

Oct.-Nov.	Sterling Exchange.	Silver. Fine oz. Cts.	Copper. London, Pence.	Copper. Lake, cts. ₱ lb.	Copper. Electrolytic ₱ lb.	Copper. London, £ ₱ ton.	Tin, cts. ₱ lb.	Lead, cts. ₱ lb.	Spelter. N. Y. cts. ₱ lb	Spelter. St. L. cts. ₱ lb.
27	4.83¾	64⅝	29⅞	16⅝	16¼ @16⅜	....	28⅛	4.32½ @4.37½	4.20	4.05
29	4.83¾	64¼	29⅛	16⅝ @16¾	16¼ @16⅜	72⅜	28⅛	4.32½ @4.37½	4.20	4.05
30	4.83¾	64	29⅛	16⅝ @16¾	16¼ @16⅜	72⅛	27¾	4.32½ @4.37½	4.20	4.05
31	4.83¾	64¼	29⅛	16⅝ @16¾	16¼ @16⅜	72	28	4.32½ @4.37½	4.20	4.05
1	4.84	64½	29⅝	16⅝ @16¾	16¼ @16⅜	71⅞	27⅞	4.32½ @4.37½	4.20	4.05
2	4.83¾	64¼	29⅛	16⅝ @16¾	16¼ @16⅜	71¾	27½	4.32½ @4.37½	4.20	4.05

London quotations are per long ton (2,240 lbs.) standard copper, which is now the equivalent of the former g. m b's. The New York quotations for electrolytic copper are for cakes, ingots or wirebars; the price of electrolytic cathodes is usually 0.25c. lower than these figures.

Copper.—The market is quiet and dull. We learn of but few transactions either for export or for home trade. Manufacturers abroad are reported to be working with very small stocks, but for the moment there is no attempt to replenish these. Consumption, however, continues good both abroad and here. In this country there is a tendency to await the outcome of the election before making heavy purchases. We quote Lake copper at 16⅝@16¾c.; electrolytic in cakes, wirebars and ingots at 16¼@16⅜c.; in cathodes at 16@16⅛c.; casting copper at 16⅜c.

The London market for standard copper has fluctuated very little. It closed last week at £72 5s. for spot, £72 17s. 6d. for three months, and opened 2s. 6d. higher. On Tuesday it declined 5s., and on Wednesday further 2s. 6d. It closes at £71 15s. for spot, £72 7s. 6d. for three months.

Our cables report the statistics for the second half of October as showing an increase of 300 tons. Refined and manufactured sorts we quote: English tough, £75@£75 10s.; best selected, £77 15s.@£78 5s.; strong sheets, £85; India sheets, £82@£83; yellow metal, 6¾d.

Tin.—The market has been very quiet. Consumption is good, but buyers are not inclined to take hold to any extent. We quote spot at 27½c., December delivery at 27¼@27½c.

The London market again shows considerable fluctuations. It closed last week at £128 for spot, £124 10s. for three months, and opened at the same figures. On Tuesday it declined to £126 15s. for spot, £123 10s. for three months; on Wednesday it was up again to £128 for spot, £125 for three months, and on Thursday declined to £126 5s. for spot, £124 for three months. At the close the quotations are £125 for spot, £122 10s. for three months.

Our cables report the statistics for the month of October as showing a decrease of 1,300 tons.

Imports of tin into the United States for the nine months ending September 30th were as follows, in pounds:

	1899.	1900.
East Indies	42,026,302	25,017,666
Australia	835,535	369,738
Great Britain and Holland.....	18,346,235	29,094.464
Other countries	430,320	365,549
Totals	61,638,392	54,847,417

The total shows a decrease of 6,790,975 lbs., or 11.0%, this year.

Visible stocks of tin on November 1st were in long tons:

	Store.	Afloat.	Totals.
London	6,245	3,200	9,445
Holland	1,011	428	1,439
U. S., exc. Pacific ports....	3,097	1,820	4,917
Totals	10,353	5,448	15,801

The total shows a decrease of 1,805 tons from October 1st, and of 2,355 tons from November 1st, 1899.

Lead.—The market continues firm and active. There is no change in prices, but we learn of more business doing. We quote New York at 4.32½@4.37½c., St. Louis at 4.17½@4.22½c.

The foreign market is firmer. We quote Spanish lead at £17 12s. 6d., English lead 2s. 6d. higher.

Imports of lead in all forms into the United States for the nine months ending September 30th, and re-exports of foreign lead, were as follows, in short tons:

	1899.	1900.
In ores and bullion.....	73,603	83,394
Metallic lead	231	204
Total imports	73,834	83,598
Re-exports	58,156	72,548
Balance retained	15.678	11,050

Of the imports this year, 67,757 tons, or 81.1%, were from Mexico, and 13.441, or 16.1%, from Canada; the remaining 2.8% coming from other countries. The increase in imports was 9,764 tons, or 13.2%; the increase in exports was 14,392 tons, or 24.8%; leaving a decrease of 4,628 tons, or 29.5% in the balance, most of which is retained here in bond.

Spelter.—The market is without feature. A good business has been done ffom day to day at the last prices, namely, 4.05c. St. Louis, 4.20c. New York.

The European market is somewhat lower, good ordinaries being quoted at £18 16s. 3d., specials at 5s. higher.

Exports of spelter or metallic zinc from the United States for the nine months ending September 30th were 20,478 short tons, against 6,445 tons last year; showing an increase of 14,033 tons, or 217.7%. Exports of zinc ore were 29,965 tons, against 17,287 tons in 1899; showing an increase of 12,678 tons, or 73.3%, this year.

Spanish Zinc Ore Market.—Messrs. Barrington & Holt write from Cartagena, Spain, under date of October 3d that the only zinc ore shipments in September were 20,000 kgs. blende to Liverpool.

Antimony.—There is no change. We quote Cookson's at 10c.; Halletts at 9¼c.; U. S. Star at 9¼c.

Imports of antimony regulus or metal into the United States in the nine months ending September 30th were 2,705,621 lbs., which compares with 2,491,174 lbs. in 1899. Imports of antimony ore were 1,964 short tons, against 1,881 tons last year.

Nickel.—The price continues firm at 50@60c. per lb., according to size and terms of order.

Exports of nickel, nickel oxide and matte from the United States for the nine months ending September 30th were 4,546,733 lbs., which compares with 3,705,428 lbs. last year and 4,503,482 lbs. in 1898.

Platinum.—Consumption continues good and prices are strong. For ingot platinum in large quantities $18.20 per Troy oz. is quoted in New York. In London a recent quotation gives 75s. per ounce, unmanufactured, and 77s. 6d.@80s. for crucibles, etc. This is very nearly on a parity with New York prices.

Chemical ware (crucibles and dishes), best hammered metal from store in large quantities, is worth 72c. per gram.

Imports of platinum into the United States in the nine months ending September 30th were 5,464 ibs.; which compares with 4,583 lbs. last year, and 4,786 lbs. in 1898.

Quicksilver.—The New York quotation continues unchanged at $51 per flask for large lots, with $52.50@$54 asked for small quantities. San Francisco prices are $48 on local deliveries, and $43.50@$44 on export orders. The London price is £9 2s. 6d. per flask, with the same price named from second hands.

Exports of quicksilver from all United States ports for the nine months ending September 30th were 622,707 lbs.; which compared with 1,-079,834 lbs. last year, and 729,440 lbs. in 1898. The decrease was chiefly due to increased consumption in this country, leaving a smaller surplus for export.

Aluminum.—Exports of aluminum from the United States—including manufactured articles—for the nine months ending September 30th were valued at $193,979, against $258,159 last year, and $127,772 in 1898.

Minor Metals and Alloys.—Wholesale prices, f. o. b. works, are as follows:

Aluminum.	Per lb.		Per lb.
No. 1, 99% ingots.....	33@37c.	Ferro Titanium (20%)...	$1.00
No. 2, 90% ingots..	31@34c.	Ferro-tungsten (37%).....	35c.
Rolled sheets.	42c up	Magnesium ..	$2.75@$3
Alum.-bronze.....	20@23c.	Manganese (over 99%)..	$1.05
Nickel-alum.....	33@39c	Mangan'e Cop (20% Mn)..	32c.
Bismuth	$2.25	Mangan's Cop (30% Mn)..	38c.
Chromium (over 99%)....	1.00	Molybdenum (Best)....	$1.45
Copper red oxide.....	.55c.	Phosphorus.....	50c.
Ferro-Molyb'um (50%)..	$1.00	American	70c.
Ferro-Titanium (10%)...	90c.	Tungsten (Best)	92c.

Variations in prices depend chiefly on the size of the order.

LATE NEWS.

A dispatch from Birmingham, Ala., November 2d, says: "In the Chancery Court here suits have been filed involving $100,000 worth of brown ore land in Franklin County. Mrs. Agnes Little alleges that Edgar Adler bought a tract from her for $28,000, paying $10,000 in cash and giving notes for the remainder. These notes, she alleges, were not paid. A. J. and J. M. Burgess, Eddie E. Hyde and Agnes Little allege that they sold to Edgar Adler a brown ore tract for $52,-000, and that he paid each of them $2,500 in cash, giving notes for the remainder. The notes, they allege, were not paid.

"The Franklin Mining Company, organized by Edgar Adler, Morris Adler and others, upon the purchase of these properties, is made a defendant, as also is the Sloss-Sheffield Steel and Iron Company, to which the Adlers sold their entire brown ore holdings in Franklin County this spring for $250,000. The plaintiffs ask for decree of sale and payment of balance due them."

CHEMICALS AND MINERALS.

(For further prices of chemicals, minerals and rare elements, see page 540.)

New York. Nov. 2

The imports and exports of chemicals, etc., at all United States ports in September were as below:

Articles.	September.		Year, 1900.	
	Imports.	Exports.	Imports.	Exports.
Bleaching Powder, lbs.	7,436,443	103	97,775,409	148,011
Caustic Soda, lbs.	808,295	28,305	6,429,921	736,793
Sal Soda, lbs	662,400	.....	3,809,386	.....
Soda Ash, lbs.	2,902,459	18,107	57,444,127	42,766
Chlorate of Potash, lbs.	92,960	.....	932,896	.....
Copper Sulphate, lbs.	.....	289,888	.....	41,437,230
Nitrate of Soda, tons.	11,843	93	124,886	2,491
Muriate of Potash, lbs	8,031,441	.....	62,970,134	278,062
Phosphate Rock, tons.	16,608	61,792	79,794	491,647
Pyrites, "	29,184	.....	256,426	.....
Brimstone "	19,062	.....	116,894	409
Saltpeter, lbs	1,574,295	.....	8,722,761	25 297

Of the imports in September decreases are noted in bleaching powder, soda ash, chlorate of potash, nitrate of soda and muriate of potash. In the exports decreases were in caustic soda and nitrate of soda.

Heavy Chemicals.—The market is firmer, as second-hands have about sold up for the present at least. Some more 1901 and 1902 contracts for high-test American alkali have been booked at 75@80c. per 100 lbs. f. o. b. works, and of caustic soda at $1.75@$1.80 per 100 lbs., f. o. b. works. Chlorate of potash shows a large business for 1901 delivery, and sales are reported at $8.25@$8.50 per 100 lbs. for American, though the Tarrant & Company building explosion, where it is claimed several hundred kegs were stored, has strengthened the spot market. Consequently, at the close holders ask $9@$9.50. Bleaching powder is stronger, and it is understood prime brands are not obtainable under $1.80 per 100 lbs. Bleach for next year's delivery is inquired for, though agents have not yet announced the new prices.

We quote per 100 lbs. as follows: Domestic soda ash in bulk is worth 2¼c. per 100 lbs. less than quotations below:

Articles.	Domestic.		Foreign.
	F.o.b. Works.	In New York	In New York.
Alkali, 58%.	70@75	....	.....
" 48%.	75@80	....	.....
Caustic Soda, high test	$1.79@$1.75	....	.....
powd. 60%	.....	2.75@3.00	.....
70@74%.	....	2.85@3.25	.....
98%	....	3 25@3.50	3.75@4.00
Sal Soda	60@70	....	65@67½
"conc.	1.45@1.75	....	1.75
Bicarb Soda..	1.12½@1.25	.....	1.75@2.00
" " extra	3.25@3.50	....	.....
Bleach Pdr., Eng. prime..	.....	....	1.80@2.00
other brands.	....	.....	1.50@1.75
Chl. Pot cryst	....	9.00@9.12½	9.50@9.75
" powd.	....	9.12½@9.25	9.75@10.00

Acids.—Acetic, muriatic and sulphuric acids all show increased contract deliveries, while oxalic is firmer and blue vitriol is stronger.

Quotations as below are for large lots delivered in New York and vicinity, per 100 lbs. unless otherwise specified.

Acetic, No 8 in lbs	$1.62½	Nitric, 36°	$3.87½
Blue Vitriol.	5.25@5.37½	Nitric, 38°	4.12½
Aqua Fortis, 36°	3 62½	Nitric, 40°	4.37
Aqua Fortis, 38°	3 87½	Nitric, 42°	4.75
Aqua Fortis, 40°	4.12½	Oxalic	.6.0 @6.50
Aqua Fortis, 42°	4.50	Sulphuric, 66°	1.20
Muriatic, 18°	1.20	Sulphuric, 60°	1.05
Muriatic, 20°	1.35	" bulk 50° ton	14.00
Muriatic 22°	1.50		

Muriate of Ammonia.—Rough grain is lower at 6@6½c. per lb., and white 6¼@6½c., while lump remains unchanged at 9¼@9½c. per lb. Better supplies of grain have caused the reduction in price.

Brimstone.—Imports at New York this week were 5,250 tons, mostly under contract. Charters taken from Sicily to the United States recently include 1,916 tons, and 1,066 tons at 10s. and 1,595 tons at 10s. 6d. Best unmixed seconds on spot have sold at $23, while shipments are held at $20.50@$21 per ton, according to position. Thirds continue about $2 per ton less than seconds.

Pyrites.—Fertilizer manufacturers are buying more freely, and prices continue unchanged as below. New York imports of Spanish pyrites this week were 6,609 tons. A charter was recently booked of 1,107 tons from Huelva to Wilmington at 12s., sailing in November. We quote: Mineral City, Va., lump ore (basis 42%), $4.75 per long ton and fines $4.20. Charlemont, Mass., lump, $5.50, and fines $5. Spanish pyrites, 12@14c. as to percentage of sulphur contents, delivered ex-ship New York and other Atlantic ports. Spanish pyrites contain from 46@51% of sulphur; American from 42@44%.

Fertilizing Chemicals.—Leading ammoniates show an improved demand. Sulphate of ammonia, gas liquor, is also in better request at $2.80@$2.82½ per 100 lbs., on spot, and $2.82½@$2.85 for shipment. Other quotations are high-grade Western blood, $2.15@$2.20 per unit f. o. b. Chicago, and $2.35 for soft New York; high grade tankage, $1.90 and 10c. per unit, f. o. b. Chicago for 9 and 20%; Calcutta bone meal, $23@$24 per ton for regular, and $21 for poorer grades; domestic steamed ground bone, $18.50@$19 per ton.

Potash salts are quoted in large lots as follows: Muriate of potash, $1.83@$1.86½ per 100 lbs.; sulphate of potash, 90@98%, $2.05½@$2.08½; double manure salt, 48@53%, $1.06@$1.08½; Kainit (25% sulphate of potash), $9.05@$9.55 per long ton; sylvinit (35@37% potash), 38½@41½c. per unit.

Nitrate of Soda.—Firmer at $1.82½ per 100 lbs. for spot and $1.85 for future shipments. The coast market is very strong and has a tendency toward higher prices. The San Pablo Nitrate Company has declared a 2½% dividend from the past year's profits, leaving a balance to be carried forward of £774 1s. 3d. ($3,770).

Messrs. Jackson Brothers, of Valparaiso, Chile, under date of September 22d, report that the principal sales during the fortnight were of refined nitrate of soda for the United States; otherwise trade was very slack. At the same time sellers have not offered their produce freely and maintain 5s. 6½d. steamer terms for 95% October-December delivery, and 5s. 5½d.@5s. 5d. for January-February. August production was 2,841,000 qtls., making a total of 21,038,000 qtls. for the 8 months of this year, against 19,729,000 qtls. during the same period in 1899. The world's consumption for the 8 months in 1900 only reached 24,426,000 qtls., the former increase as compared with 1899 having entirely disappeared. We quote 95%, October-December, 5s. 6d., and 96%, 5s. 8d., both ordinary terms, with but few sellers. The price of 5s. 6d. with an all-round freight of 33s. 9d. stands in 7s. 9¾d. ($1.88) per cwt., net cost and freight without purchasing commission.

Phosphates.—Reports from abroad indicate that superphosphate manufacturers, especially in Germany, are supplied with phosphates for some time to come, hence they can afford to wait for the market prices to ease off somewhat. On the other hand, freight rates continue strong.

An importation at New York is noted this week of 1,000 bags phosphate from Belgium.

Phosphates.	Per Ton F. o. b.	C i. f. Un'd Kingdom or European Ports.	
		Unit.	Long ton.
*Fla. hard rock (77@80%)	$7.50@8.00	8½@8¾d	$13.26@13.66
*Fla. land pebble (68@73%)	4 35	7½@7¾d	10 50@10.85
*Fla Peace River (58@63%)	3.00@3.50	6¼@7½d	7.50@9.00
†Tenn. rock 78%, export.	3.50@3.75	7½@7¾d	11.70@12.09
†Tenn.....78% domestic.	3.00@3 50	.....	.....
†Tenn.....75% "	2.75@3.00	.....	.....
†Tenn.....72% "	2.25@2.65	.....	.....
‡So. Car. rock, crude....	4.00	.....	.....
§So. Car. rock, dried.....	4.50	6¾d	8.10
Algerian, rock...(63@70%	.....	7@7½d	9.38@10.05
Algerian, rock...(58@63%)	.....	6¾@7¼d	8.10@8.70

* Fernandina. † Mt. Pleasant. ‡ At mines. § On vessels, Ashley River.

Liverpool. Oct. 24.

(Special Report of Joseph P. Brunner & Co.)

There is a steady demand for heavy chemicals, principally for 1901 delivery, the prompt export trade being only moderate.

Soda ash is in fair demand and export prices have been advanced, the nearest range for tierces being now about as follows: Leblanc ash, 48%, £5 5s.@£5 10s.; 58%, £5 15s.@£6 per ton net cash. Ammonia ash, 48%, £4 10s.@£4 15s.; 58%, £4 15s.@£5 per ton, net cash. Bags, 5s. per ton under prices for tierces. Soda crystals are firm at £3 7s. 6d. per ton, less 5% for barrels, or 7s. less for bags, with special terms for certain favored markets. Caustic soda is well maintained, as follows: 60%, £9 5s.; 70%, £10 5s.; 74%, £10 15s.@£10 17s. 6d.; 76%, £11 5s.@£11 10s. per ton, net cash.

Bleaching powder is in light demand for export, at £6 5s.@£6 10s. per ton, net cash, for hardwood. For home trade, however, there is a fair business passing for balance of this year, owing to the higher prices named for 1901 delivery.

Chlorate of potash is slow of sale at 3¾d. per lb., net cash.

Bicarb. soda is selling to a moderate extent at £6 15s. per ton, less 2½% for the finest quality in 1 cwt. kegs, with usual allowances for larger packages; also special terms for certain favored markets.

Sulphate of ammonia is less active, but prices keep steady at £11 2s. 6d.@£11 5s. per ton, less 2½% for good gray 24@25% in double bags f. o. b. here.

Nitrate of soda is quiet on spot at £8 7s. 6d.@£8 12s. 6d. per ton, less 2½% for double bags f. o. b. here, as to quality.

MINING STOCKS.

Complete quotations will be found on pages 537 and 538 of mining stocks listed and dealt in at:

Boston. Colo. Springs. Denver. New York. Philadelphia. Salt Lake. San Francisco. Spokane. Toronto. Montreal. London. Mexico. Paris.

New York. Nov. 2.

Insiders are doing most of the buying of copper shares just now, apparently with a view to strengthening the market. Amalgamated sold at $92½@$90¾; Anaconda at $45@$46; British Columbia at $15¼@$15⅞, and Union, of North Carolina, at $2½@$2⅞.

In the Colorado group the usual amount of trading was done, and of the sales made Portland brought $3.30@$3.50; Elkton, $1.85; Isabella, 90@87c. and Anaconda, 48c.

Standard, of California, was firmer at $4 on declaration of the 10c. dividend. Sales of Quicksilver preferred were made at $8.25, an advance of 50c. since last week.

Of the Comstock sales are reported of Consolidated California & Virginia at 95c., of Ophir at 87@89c., of Mexican at 34c., of Sierra Nevada at 27c. and of Potosi at 18c.

Horn Silver, of Utah, brought $1.20, or 5c. more than at the last sale two weeks ago.

Boston. Oct. 31.

(From Our Special Correspondent.)

The market has fallen off again this week in a way which indicates that my forecast as to the public interest in stocks was correct. The trading this week has been almost entirely among insiders, and the special feature has been the blind pool stocks, which have been active and closed at fairly good prices. Outside of this the market has been narrow, with rather a downward tendency. In the group named above Boston & Montana sold up to $323 and then dropped to $311, closing at $316½. Butte & Boston brought $62½; Parrot, $45, and Isle Royale, $35.

In the dividend-payers Calumet & Hecla was $785; Tamarack, $256; Quincy, $156; Osceola, $72½; Wolverine, $42. The smaller coppers were almost neglected. Baltic was quoted at $22; Mohawk, $19; Santa Fe, $6½@$7.

Outside of the coppers Centennial-Eureka sold at $20; United States Mining, $9½; Cochiti, $8. There were sales of United States Oil at $14. Agricultural Chemical brought $25½. There were sales of Dominion Coal at $39½, and of New England Gas and Coke at $11½.

Colorado Springs. Oct. 27.

(From Our Special Correspondent.)

There was a general improvement in mining shares during the past six days—increased buying at better prices. The advance was distributed through all departments of the market.

The most important happening in the mining world for months was the action taken this week by the Colorado Springs Mining Stock Association, looking to raising commissions charged on mining stocks. A conference of committees appointed by all the exchanges of the State will be held Monday in this city, at which time a schedule approximating 75% of the original commission rates will be adopted. Commissions were cut in two a year ago as a result of a distressing factional dispute between two mining exchanges of the city; and the commissions thus established have always been considered to be too low to permit the large brokerage houses to undergo the heavy expense incident to the building up and retaining a well-posted Eastern clientage. The increase of 25% of the old rate will provide this necessary margin.

Elkton and Isabella were much stronger this week, the former gaining 5c. a share and the latter 2½c. Gold King was weak, due to the official statement that the next quarterly dividend of 3c., a share falling due in January, may possibly be passed owing to the fact that the mine has been closed down for about 3 months while a large and improved hoisting and mining plant was being installed. Portland has gained steadily, going from $3.25 to $3.40. It is strongly rumored that this mine is to sell in London. The week's bank clearings were $795,393, a slight loss over a week ago.

Salt Lake City. Oct. 27.

(From Our Special Correspondent.)

Prices in Utah mining shares have somewhat strengthened since last Saturday and the tone of the market is apparently more healthy. Ore conditions in several tintic properties lend encouragement to a further advance in these shares, while Daly-West has scored a new high mark and is in excellent demand. The total sales reported on the exchange for the week are 68,686 shares, which sold for $41,872. An interesting feature is that the sales to-day, while showing the smallest number of shares for the week—3,908—brought the largest amount of money of any day, or $9,267. There is an increasing business in curb transactions, some of the largest transfers being made off the Exchange.

Bullion Beck is putting on more strength, with

a strong undercurrent of inquiry. Dalton holds the recent advance. Daly-West did a good business, climbing to $20.10, the closing sale. Eagle & Blue Bell has made the greatest jump, selling last Saturday at 53; it grimly moved up to 90 bid, 95 asked. Grand Central afforded another surprise, the advance being due to the semi-official announcement of a Thanksgiving dividend. Lower Mammoth is a shade soft. Mammoth dropped the amount of the dividend when the books closed for the same.

Ontario is inactive, with no offerings. Although the bid rarely moves above $5.50, it is doubtful if anything more than a few floating shares can be had below $7.50. While the outcome of the Crown Point suit hangs uncertain in the courts, the treasury reserve is steadily augmenting, though there are no dividends. Silver King is wanted at $60, with no offerings. Swansea is unusually strong, the persistent inquiry being due to a flattering ore uncovering at deepest workings. Utah paid the $2,000 dividend this week. Star Consolidated's advance is due to the expectation of the transfer of the control to a strong syndicate at $1.

San Francisco. Oct. 27.

(From Our Special Correspondent.)

The celebration at Virginia City has been followed by some delays in starting up the electric power on the Comstock, which might be expected in a new plant. The bear party took advantage of this, and successfully, stocks being generally weaker. The volume of transactions was not large, and there was the usual profit taking on small turns.

Some quotations noted were: Consolidated California & Virginia, $1.10; Ophir, 82c.; Gould & Curry, 66c.; Caledonia, 35c.; Silver Hill, 30c.; Hale & Norcross, 29c.; Chollar, 17c. There were several sales of Standard Consolidated at $3.40 @$3.50.

The Oil Exchange shows much activity and a slightly higher range of prices. Good stocks are in demand. Kern Oil was quoted at $9.75; San Joaquin, $9.25; Home Oil, $4.50; Twenty-eight, $2.10; Reed Crude, 50c.; California Standard, 37c.; Independence, 22c.; Petroleum Center, 20c.

The great topic of discussion just now is the proceedings of the "scrippers"—the party of operators who are seeking to locate on oil lands or probable oil lands with land scrip issued under the forest reservation acts. These parties seem to have no scruples about the affidavits which the law requires shall declare that the lands are purely for agricultural purposes, as long as they can get locations where the oil men must buy them out.

London, England. Oct. 23.

(From Our Special Correspondent.)

In the total absence of business in the South African and West Australian markets, a number of members of the Stock Exchange have formed themselves into a West African market and they are pushing quite vigorously the shares of companies operating in the Ashanti District of West Africa. A year or two ago some noise was made by a company called the Ashanti Gold-fields, which was formed by influential people in London and chiefly on glowing prospects the shares were pushed up to a high level. The present boom seems to be a development of this. All kinds of companies have been registered with West African names, but there is really very little foundation for them.

The dulness of the mining market is quite remarkable. The collapse of organized resistance in the Transvaal was expected to bring brighter days. Then it was hoped that the result of the general election would have a good effect. During the last few days the publication of the agreement of Germany and England as regards China might have been expected to tone up the market. But nothing nowadays seems to give it any life. It now looks as if no improvement was to be expected until the Transvaal once more gets on its legs as a regular gold producer. If so, I am afraid we shall have some time to wait.

A few months ago I mentioned that reports were being circulated about a new company shortly to be launched called the Siberian Gold Concessions and that the celebrated Mr. Hooley was at the bottom of it. The flotation of this company is now going on privately and no doubt we may hear something of it in public before long. Blocks of shares are being subscribed for all over England on the recommendation of various dealers and underwriters, and already a considerable amount of capital has been guaranteed. The information as to the nature of the concessions and the properties is very meager and the value of the properties seems to be quite undetermined.

An example of a Stock Exchange hoax occurred the other day when the officials put up a notice on the board, sent by some unknown person, to the effect that a rich strike of ore had been made at the Australian Broken Hill Consols Mine and that this ore assayed 25,000 oz. of silver to the ton. The quotation for the shares went up with a bound until somebody figured out the number of ounces in a ton and then the hoax was discovered. A large number of shares had been sold at advanced prices and the buyers are wanting to get out of their bargains. It is remarkable how many false notices pass the officials of the Stock Exchange and some of them very apparent frauds.

Paris. Oct. 21.

(From Our Special Correspondent.)

Our stock market is still depressed in feeling, and mining shares have received but little attention. Speculation is for the time in suspense, notwithstanding the favorable conditions of the money market. The Bourse has, indeed, been almost without incident, so far as mining stocks are concerned.

For some years past Turkish securities have been very much out of favor, but there has been a revival of one stock at least. The Societe des Mines d'Heraclee has not had a prosperous career, but it appears now, with the high prices of coal, that there is a chance to recover some of its past losses and establish its finances on a better basis.

The foreign merchandise trade of France for the nine months ending September 30th is reported by the Ministry of Commerce as below:

	1899.	1900.
Imports	Fr. 3,367,731,000	Fr. 3,282,623,000
Exports	3,012,254,000	2,981,963,000
Excess, imports ...	365,477,000	300,660,000

The decrease in imports was 85,108,000 fr., or 2.5%; it was chiefly in food and raw materials. The exports decreased 30,291,000 fr.—chiefly in raw materials and manufactured goods, the loss being 1.0%. This left a decrease of 54,817,000 fr., or 15.4%, in the excess of imports.

The situation in the bourses of our next neighbor, Belgium, is not reassuring just now, and causes some anxiety among our financiers. As in Germany, there has been in Belgium during the last two years a great industrial expansion and many new companies have been organized, their stocks being placed at high prices. Now the reaction has begun, industrial shares are falling in price, and their holders are unable to realize. The situation affects our bourse because a very large amount of these shares have been sold to French investors who saw—or thought they saw—opportunities for large profit. The semi-panic in Berlin and Vienna may possibly be followed by a similar state of affairs in Brussels, which would be severely felt here.

There is talk again of a Russian loan, to be made for railroad purposes. The latest report I hear is that the loan is to be for 500,000,000 fr., one-half to be placed here and one-half in New York. The last does not please our financiers altogether. If such a loan is to be made it would be as easy to place the whole as half of it, and the sending one-half to New York would probably involve the use of all or a large part of it in buying the railroad material in America. This would not suit our manufacturers at all. However, nothing is settled yet, and it is quite probable that this talk of a loan is put out, according to the familiar practice of the Russian Ministry of Finance, as a "ballon d'essai" we call it—a "feeler" you would say—to test the disposition of the markets.

The uncertainty as to the closing of the Exposition is unsettling matters very much. Some exhibitors protest strongly against the proposed extension of time for a month beyond the period for which they had made arrangements. The extension of time will not help materially the holders of concessions who have lost money.

Azote.

Mining Dividends.

In the ten months ending October 31st the metal mining companies in this country reporting to the "Engineering and Mining Journal," paid a total of $42,568,071 in dividends. This is an excellent showing of the returns received by capital invested in the metal mining industry. During these ten months the largest dividend payers were the copper companies; of those in Montana the Amalgamated Copper Company, which controls the Anaconda and Parrot and has a large interest in other companies, declared $6,000,000, or 8% on its capitalization. The Anaconda Copper Company is credited with paying $4,800,000, or 16% on its capital stock; the Boston & Montana Company, $4,200,000, or 113%, and the Parrot Company, $1,379,100 or 60% on its issued capital stock. The Amalgamated Company's dividend, however, is really a duplication, as it works no mines directly, and its dividend is derived from the stocks of other companies which it holds. Of the Michigan copper companies, Calumet & Hecla paid in the ten months $5,000,000, or 200% on its capitalization; Quincy, $900,000, or 36%, and Tamarack, $420,000, or 28%. In California the Mountain Copper Company paid $1,200,000, or 19.2% on its share capital. In Arizona the United Verde (ex-Senator Clark's property) is credited with paying $1,650,000, or 55% on its capital stock, and the Arizona Copper Company, $576,429, or 18%. The next largest dividend payers in the 10 months were the gold mining companies, which also produced some silver and lead. In this group the leaders were Stratton's Independence, Limited, of Colorado, with $1,789,337, or 35.8% on its issued capital stock, and Portland, $750,000, or 25%. In South Dakota the Homestake Gold Mining Company is foremost with $1,050,00, or 5%, on its share capital. In Utah the Silver King Company paid $750,000, or 25%, on its capitalization, and the Daly-West Company, $412,500, or 13.7% In Alaska, the Alaska-Treadwell Gold Mining Company paid out $300,000, or 6% on its capital stock. In Arizona La Fortuna Gold Mining Company lead with $232,500, or 93%, on its capitalization, and in California we have the Yellow Aster Company with $130,000, or 13%. Of the silver-lead dividend-payers, those in Idaho are most prominent, being the Empire State-Idaho Mining Company with $295,541, or 30% on its issued shares; the Standard Company with $295,000, or 59%; Buffalo Hump, $225,000, or 10%, and the Bunker Hill & Sullivan Company with $210,000, or 7%. Of the lead and zinc mining companies in Missouri and Kansas, the St. Joseph Lead Company leads with $112,500, or 4.5% on its issued share-capital. There have also been numerous smaller dividend-payers, especially in the gold and silver mining industry, while in the lead and zinc sections the number has grown less, owing in part to the end of the boom in the Joplin Region.

DIVIDENDS.

Name of Company.	Latest Dividend. Date.	Per share.	Total.	Total to date.
Adams, Colo.	Nov. 15	$ .05	$7,500	$701,000
†Bethlehem Steel, Pa.,	Dec. 1	.50	150,000	1,050,000
†Boston Gold Cop.Sm.,	Nov. 15	.02½	25,000	50,000
Boston & Mont. Con..	Nov. 20	15.00	2,250,000	20,750,000
Cambria Steel, Pa....	Nov. 15	.50	160,000	1,600,000
*Empire State, Ida....	Nov. 15	.30	29,554	643,133
Hecla, Idaho	Oct. 22	.02	20,000	80,000
Last Dollar, Col.....	Nov. 21	.02	30,000	120,000
Lightner, Cal.....	Oct. 29	.05	5,000	5,000
†National Tube, com..	Nov. 15	1.50	600,000	1,200,000
Standard Con., Cal....	Nov. 22	.10	20,000	3,979,226
Standard, Idaho ...	Oct. 22	.08	40,000	2,100,000
Stratton's Ind'p'nd'ce	Oct. 25	.48	488,003	2,765,352
Warwick Iron & St...	Nov. 10	2.00	.....	.....
.....	.....	.....	.....	.....
.....	.....	.....	.....	.....
.....	.....	.....	.....	.....

* Monthly. † Quarterly. § Semi-annual.

ASSESSMENTS.

Name of Company.	Location.	No	Delinq.	Sale.	Amt.
Belcher	Nev..	66	Nov. 13	Dec. 4	.10
Ben Butler	Utah	6	Nov. 16	Dec. 6	.00¼
Benton Con	Cal..	..	Nov. 5	.....	.20
Bingham Placer	Utah	...	Oct. 16	Nov. 17	.10
Bullion	Nev..	57	Nov. 15	Dec. 5	.03
California Borax	Cal	...	Nov. 19	....	.75
Con. Cal. & Va.	Nev..	16	Dec. 10	Dec. 10	.25
Challenge, Con.....	Nev..	30	Nov. 20	Dec. 11	.10
El Carmen.	Mex.	..	Nov. 5	.....	.03½
Eureka Con. Drift....	Cal.	...	Nov. 13	.....	.01
Fish Springs.....	Utah	...	Oct. 15	Nov. 3	.01
Fremont	Utah	...	Oct. 30	.....	.00¼
Goleta, Con ...	Cal..	2	Oct. 25	Nov. 24	.15
Gould & Curry	Nev..	92	Nov. 8	Nov. 29	.15
Grape Vine Canyon..	Cal	3	Oct. 23	Nov. 14	.07
Jefferson.....	Utah	1	Nov. 20	Dec. 10	.00½
Joe Bowers Ext.	Utah	9	Oct. 26	Nov. 15	.01
Mariana Marsicano	Cal..	24	Oct. 23	Nov. 12	.02
Mariposa Com'l & Mg.	Cal.	18	Oct. 10	Nov. 8	10.00
Mayflower.....	Utah	2	Oct. 24	Nov. 15	.00½
Mazeppa	Cal..	2	Nov. 17	. ....	.02
Meteor.....	Utah	...	Oct. 19	Nov. 21	.00½
Nevada	Nev..	..	Sept. 17	Nov. 8	.00½
North Bonanza..	Nev..	12	Nov. 1	Nov. 15	.15
Old Colony & Eureka.	Utah	1	Nov. 13	Nov. 29	.00¼
Osceola Con	Cal..	..	Nov. 19	.....	.01
Phœnix Silver.....	Utah	...	Nov. 13	Dec. 13	.00½
Potosi.....	Nev..	57	Nov. 22	Decc 12	.10
Reward.....	Cal	...	Nov. 9	.....	.02½
Ridge & Valley..	Utah	1	Nov. 3	Nov. 19	.01
Scorpion	Nev..	8	Oct. 26	Nov. 19	.03
Seg. Belcher & Mides.	Nev..	26	Nov. 7	Nov. 27	.03
Sierra Nevada....	Nev..	120	Nov 20	Dec. 10	.15
Shoebridge Bonanza..	Utah	5	Oct. 15	Nov. 6	.008
Sonora	Cal..	...	Oct. 3	Nov. 13	.01
South Bingham.	Utah	2	Nov. 1	Nov. 30	.01
Spanish Bar.....	Cal..	...	Nov. 24	.....	.01
Star.....	Utah	...	Nov. 7	Nov. 28	.02
Tetro.....	Utah	15	Oct. 17	Nov. 10	.01
Valeo.....	Utah	4	Nov. 22	Dec. 15	.05
Wandering Jew.	Utah	5	Nov. 17	Dec. 5	.00½
Yellow Jacket.....	Nev..	...	Nov. 6	Dec. 19	.10
.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....

ANNUAL MEETINGS.

Name of Co.	Locat'n.	Date.	Place of Meeting.
Ala. & Ga. Iron.	Ga.	Nov. 7	71 Broadway, N. Y.
*Dexter.....	Nev.	Nov. 15	Salt Lake City, Utah
*Holmes	Nev.....	Dec. 19	San Francisco, Cal.
*Ludwig Copper	Nev.....	Nov. 7	Gold Hill, Nev.
*Sterl'g W. Lead	Pa.....	Jan. 15	Pittsburg, Pa.
*Tuscarora	Nev..	Nov 15	Salt Lake City, Utah

*Special meeting.

STOCK QUOTATIONS.

NEW YORK.

Name of Company.	Location.	Par val.	Oct. 26. H.	Oct. 26. L.	Oct. 27. H.	Oct. 27. L.	Oct. 29. H.	Oct. 29. L.	Oct. 30. H.	Oct. 30. L.	Oct. 31. H.	Oct. 31. L.	Nov. 1. H.	Nov. 1. L.	Sales.
Alamo	Colo..	1													
Alice	Mont.	25													
†Amalgamated C	Mont.	100	91.50	91.00	92.00	91.00	91.50	90.75	91.38	90.75	91.00	90.50	91.00	90.50	2,600
Anaconda, c	Mont.	25	46.00	45.00	46.00	45.25	45.38	45.00	45.50	45.00	46.00	45.25	44.75		5,225
Anaconda Gold	Colo..	5									.48				
Argentum-Jun	Colo..	2	.27				.27								2,000
Best & Belcher	Nev...	3													
British Col. Cop.	B. C ..	5	15.00	14.88	15.00	14.75	15.50	15.25	15.88	15.63	15.88	15.63	16.00	15.88	2,000
Brunswick Cons.	Cal. ..	1													
Cable Cons	Colo..	1							.05						1,000
Catalpa	Colo..	10													
Chollar	Nev ..	3	.20												500
Chrysolite	Colo..	50							.06						1,000
Comstock T	Nev ..	100													
" bonds	Nev..	100													
Con. Cal. & Va.	Nev ..	2½			1.15						.95				200
Creede & C. C	Colo..	1													
Cripple Cr. Con	Colo..	1			.14						.15				1,100
Crown Point	Nev ..	3			.18	.12									500
Elkton	Colo..	1	1.35				1.35								300
Garfield Con	Colo..	1							.10						1,000
Gold Dollar	Colo..	1							.15		.15				1,500
Golden Age	Colo..	1													
Golden Fleece	Colo..	1	.18								.20				1,500
Gould & Curry	Nev ..	3													
Hale & Norcross	Nev ..	3													
Homestake	S. Dak	100													
Horn Silver	Utah..	20	1.20		1.20		1.20								400
Iron Silver	Colo..	20									1.25				150
Isabella	Colo..	1	.90		.90		.90		.88		.87				1,100
Jack Pot	Colo..	1													
Leadville	Colo..	10													
Little Chief	Colo..	1					.17								500
Mexican	Nev ..	3									.34				100
Mollie Gibson	Colo..	5					.24								600
Moulton	Colo..	1	.30												100
Mt. Rosa	Colo..	1													
Occidental	Nev ..	3													
Ontario	Utah..	100													
Ophir	Nev ..	3			.87		.89	.87			.87				1,100
Pharmacist	Colo..	1					.13								1,000
Phoenix	Ariz...	1													
Pinnacle	Colo..	1	.19												1,000
Plymouth	Cal....	10													
Portland	Colo..	1							3.30		3.50				300
Potosi	Nev ..	3	.25		.24				.18						500
Quicksilver pf	Cal...	100									3.25				100
Savage	Nev ..	2½													
Sierra Nevada	Nev ..	5							.27						500
Small Hopes	Colo..	20													
Standard Con	Cal....	10			4.00		4.00				4.00				500
Syndicate	Cal....	1													
Tenn. Copper	Tenn..	25	16.00	15.50	16.00	15.50	16.00	15.00	16.00	15.00	15.75	15.25	16.00	15.00	
Union Con	Nev ..	2½													
Union Copper	N. C..	10	3.00	2.75	2.68	2.50	3.00	2.63	3.00	2.75	3.00	2.75	3.00	2.75	
Zenobia		3			.15										1,00 0

COAL AND INDUSTRIAL STOCKS.

Am. Sm. & Ref.		$100	41⅞	41¾	41⅞	41⅝	41¼	40⅞	41⅞	41	41⅛	41	40¼		6,528
" " " pf		100	91¾	91⅝	91½	91¼	91⅜	91	91	90¼	91	90¼	90⅜		3,120
Am. S. & W. Con		100	36	34⅜	36	34⅞	34⅞	34⅜	35⅜	34	35⅜	34⅜	34½		30,827
" " " pf'r n		100	75	74½	75¼	75	75	74⅝	75½	74	76	75½	75		8,770
Col. Fuel & I	Colo..	100	40	38¾	40	39¾	39	38⅜	39	38¾	39¼	37¾	38¾		7,345
Col. & H. C. & I.		100	17¼	17	16¾		16¼	16	16		16				1,550
Federal Steel		100	39½	38	39¼	38½	38⅝	37⅜	39	37⅜	39	37¾	37⅞		34,540
" " pf		100	69½	68¾	68¾		68⅜	67⅜	68¾	67½	68¼	67¾	67¾		5,579
Fleming'n C. & C	W.Va.	100	30	20	30	20	30	20	30	20	30	20	30	20	
National Lead		100	20				19⅝	19½	19¾		18¾		18⅝		1,160
" " pf		100	97½						96	94⅝	95½	95⅜	95		674
National Salt		100			37		38½	37			41				845
" " pf		100									69½				50
National Tube		100	55⅜	54⅜	53½	55	55¼	53⅞	53⅝	53	53¾	53⅛	53½		12,878
" " pf			98½	98	98½		98¾	97½	97¾	97½	98¼	98	98½		3,159
Republic I. & S		100	14	13½	14	13⅞	13⅜	13⅛	13⅜	13⅛	13¾		13⅝		5,255
" " pf		100	57½	57	57⅝		56¾		56¾	56½	57	56½	56½		2,773
Sloss-Shef		100													
" " pf		100					65½								
Stan. Oil of N. J.		100	605	601	606	602	600	591	598	595	599	596	600	595	85
Tenn C., I.&R.R.		100	60	58¾	59½	58	57½	54	56¾	55	57	54½	55		27,862
Va. Coal & C		100	8	6	8	6	8	6	8	5	8	5			

†Ex Dividend. Total sales, 182,885.

PHILADELPHIA, PA.§

Name of Company.	L'cation.	Par Val.	Oct. 25. H.	Oct. 25. L.	Oct. 26. H.	Oct. 26. L.	Oct. 27. H.	Oct. 27. L.	Oct. 29. H.	Oct. 29. L.	Oct. 30. H.	Oct. 30. L.	Oct. 31. H.	Oct. 31. L.	Sales
Am. Alkali		$50	3.00	2.50	2.63	2.38	2.38	2.25	2.25		2.25		2.25	2.13	3,005
Am. Cement		10	8.50	8.13	8.50	8.25	8.25		8.00		8.13				1,100
Bethlehem Iron	Pa.	50	56.38		56.38		56.38		56.50						216
Bethlehem Steel	"	50	15.50		16.00	15.50			15.75	15.00	15.25		15.75	15.50	518
Cambria Iron	"	50	45.00										45.00		45
†Cambria Steel	"	50	16.25	16.13	16.25	15.50	15.88		15.38	15.63	16.00	15.75	15.75	15.25	2,990
Susq. I. & S	"	10			2.50	2.38	2.50	2.38	2.38		2.38	2.25	2.25		355
United Gas I	"	50	118¾	116¾	117½	116½	117¼	117	116½	115¾	117	115½	116½	116	4,238

Total shares sold, 12,523. § Reported by Townsend, Whelen & Co., 309 Walnut St., Philadelphia. †Ex-Dividend.

SAN FRANCISCO, CAL.

Name of Company.	Location.	Par value.	Oct. 25.	Oct. 26.	Oct. 27.	Oct. 29.	Oct. 30.	Oct. 31.
Belcher	Nev.	$3.00	.14	.15	.14	.12	.12	.12
Best & Belcher	"	3.00	.26	.27	.27	.24	.23	.24
Caledonia	"	3.00	.35	.36	.36	.36	.34	.35
Challenge Con	"	3.00	.15	.14	.14	.13	.12	.12
Chollar	"	3.00	.17	.17	.17	.17	.17	.16
Confidence	"	3.00	.60	.60	.50	.60	.50	.50
Con. California & Virginia	"	2.50	1.05	1.00	1.00	1.00	1.00	1.00
Crown Point	"	3.00	.10	.10	.10	.10	.10	.10
Gould & Curry	"	3.00	.69	.71	.75	.72	.72	.71
Hale & Norcross	"	3.00	.25	.25	.25	.27	.28	.26
Justice	"	2.00	.04	.04	.04	.03	.02	.03
Mexican	"	3.00	.33	.34	.35	.31	.29	.30
Occidental Con	"	3.00	.08	.08	.08	.08	.08	.08
Ophir	"	3.00	.83	.83	.84	.81	.77	.77
Potosi	"	3.00	.15	.15	.14	.14	.14	.13
Savage	"	2.50	.21	.21	.21	.19	.18	.18
Sierra Nevada	"	3.00	.26	.26	.26	.24	.24	.24
Standard Con	Cal.	10.00	3.35	3.60	3.60	3.40	3.25	3.25
Union Con	Nev.	2.50	.21	.21	.21	.19	.18	.16
Utah Con	"	1.00	.08	.08	.09	.08	.08	.08
Yellow Jacket	"	3.00	.17	.16	.17	.16	.16	.16

CALIFORNIA OIL STOCKS.*

Name of Company.	No. of shares.	Par Val.	Oct. 9. H.	Oct. 9. L.	Oct. 10. H.	Oct. 10. L.	Oct. 11. H.	Oct. 11. L.	Oct. 12. H.	Oct. 12. L.	Oct. 13. H.	Oct. 13. L.	Oct. 15. H.	Oct. 15. L.	Sales.
Blue Goose	5,000	$100	8.00	5.00					5.00		2.50				
Buckhorn	16,000	10.00	3.75	3.00	3.75		3.75		3.75	2.50			3.60		
Home	100,000	1.00	4.50	4.40	4.50	4.40	4.50	4.45	4.60	4.50	4.60	4.35	4.70	4.60	1,425
Homestake	10,000				13.50				13.00						
San Joaquin	100,000	1.00	7.75	7.50	8.25	7.50	8.25	7.75	8.25	7.75	8.13	7.88	8.25	8.00	595
Yukon	100,000	2.50	.63	.60	.63	.59	.61		.60	.57	.64	.58	.60	.58	950

* California and Producers Oil Exchanges. Total sales, 2,970 shares.

BOSTON, MASS.†

Name of Company.	Par val.	Shares Issued.	Oct. 25. H.	Oct. 25. L.	Oct. 26. H.	Oct. 26. L.	Oct. 27. H.	Oct. 27. L.	Oct. 29. H.	Oct. 29. L.	Oct. 30. H.	Oct. 30. L.	Oct. 31. H.	Oct. 31. L.	Sales
Adventure Con	$25	100,000			5.25	5.00			5.00				5.00		150
Aetna Con	5	100,000					.75				.75		.75		100
Allouez	25	80,000			2.50	2.25	2.43		2.50				2.50	2.25	535
Amal. Copper	100	750,000	92.00	91.50	91.50	91.00	91.25	91.00	92.13	91.00	91.50	90.75	91.50	90.00	1,965
Am. Z., L. & Sm.	25	60,000													
AnacondaCopp'r	25	1,200,000													
Arcadian, c	25	150,000	19.25		18.00				18.00		17.00				300
Arnold	25	60,000			4.50						4.50				200
Atlantic, c	25	40,000	25.00				25.00		24.25	24.00	23.75		23.75		450
Baltic, c	25	100,000	24.00	23.00					23.50		22.00		23.00	22.00	875
Bingham, c. g	10	190,000	12.75		12.50		12.75	12.50	12.50	12.13					571
Bonanza Dev	10	300,000			1.19		1.19		1.19	1.13	1.00				800
Boston, q	10	100,000					3.00								200
Boston & C. C	2	275,000	.10												300
Boston & Mont	25	150,000	325	320	322	320	323	320	323	312	323		313	32¼	7,035
British Columbia	5	200,000	16.00	13.50	14.75	14.00	15.00		15.25	15.00				15.75	15.00	1,396
Butte & Bost., c	10	200,000	66.50		66.00	65.00	64.00		64.00	62.50	65.00	60.00	65.00	62.50	1,414
Cal. & Hecla, c	25	100,000	780	775	780		785		790						39
Centennial, c	25	90,000	18.00	17.75	17.75	17.50	17.88	17.50	17.50	16.75	17.00	16.50			900
‡Cent'l-Eureka	25	100,000			20.00	19.50			20.00	19.50	20.00	19.50	20.00		1,393
Cochiti, g	10	175,000	8.50	8.13	8.38				8.25	8.13	8.13		8.25	8.00	860
Copper Range	25	100,000	22.00	21.00			21.50		21.00		20.50	20.00			415
Dominion Coal	100	150,000	40.75	40.50	41.50	40.00			40.00	39.25	39.88	39.50	39.50		946
do, pref	100	30,000	113				113½						114		23
Elm River	12	100,000									4.13	3.88			160
Franklin, c	25	100,000	15.50		15.00				15.00	14.50	14.63	14.50			490
I. Royal Con., c	25	100,000	37.25	35.50	36.88	36.25	36.25	36.00	36.13	35.13	35.13	34.00	35.00	34.75	6,422
Mass Con	25	100,000			9.75				9.75	9.50			9.50	9.00	565
Mayflower	25	100,000					2.00								100
Michigan	25	100,000			3.50	3.25	3.13		3.13						518
Mohawk, c	25	100,000	19.00	18.38	18.75	18.25	19.50	19.00	19.00	18.75	18.25		19.00		1,440
Mont. C. & C	25	200,000													
N. A. G. Dreg	10	100,000	1.00						.75				.75		200
N.E. Gas & Coke	100	160,000					14.00	13.00	13.00	12.63	12.50				220
Old Colony	25	100,000			3.00										100
Old Dominion, c	25	150,000	22.50	22.00	22.00	21.00	21.50	21.25	21.25	20.50	21.50	20.25	21.00		2,945
Osceola, c	25	93,000	73.00	72.00	72.00	71.25	72.25		71.75	71.00	72.25	70.50	72.25	71.50	1,266
Parrot, s c	10	229,850	46.25	45.50	45.50		45.50		45.50	44.50	45.00	44.13	45.00	44.75	1,728
Pioneer	10	100,000													
Quincy, c	25	100,000	152	150	153						156	155	156	155	129
Rhode Island	25	100,000	4.00		4.00				3.63				3.75	3.50	280
Santa Fe, g. c	10	250,000	7.25		7.25	7.00			7.00				9.75	3.63	620
Tamarack, c	25	80,000	260						260	258	256	256	256	255	56
Tecumseh	25	80,000							2.00	1.75					110
Trimountain	25	100,000	11.50		11.38	11.13	11.25		11.50	11.25			11.25	11.00	1,045
Union C. L	25	80,000									2.00				100
UnitedStatesMg.	25	250,000											9.50		10
Utah Con., g. c	5	300,000	33.25	33.00	32.75	32.38	33.00	22.50	32.50	31.50	34.00	31.00	32.50	31.75	2,235
Victor, g	5	200,000													
Victoria	25	100,000	3.00		3.00				3.00		3.00				375
Washington	25	60,000							.65	.60					60
White Knob	100	50,000													
Winona, c	25	100,000	3.88						3.00						20 0
‡Wolverine, c	25	60,000	42.00		42.50	41.75	42.50		42.25	41.25	42.00	41.00	42.00		52 0
Wyandot	25	100,000	1.25						1.25						25 0

† Official quotations Boston Stock Exchange. ‡Ex-Dividend. Total sales, 43,268 shares.

SALT LAKE CITY, UTAH. Oct. 27

Stocks.	Shares.	Par val.	Bid.	Asked.	Stocks.	Shares.	Par val.	Bid.	Asked
Ajax	300,000	$10	$0.52	$0.53	Horn Silver	400,000	$25	$1.15	
Alice	400,000	25	.40	.60	Joe Bowers	400,000	1	.02½	$1.38½
Bullion-Beck & Ch	100,000	10	4.00		Joe Bowers Ext	700,000	½		
Centennial Eureka	200,000	25	19.00		Little Pittsburg	400,000	5	.00½	.01
Chloride Point	500,000	1		.02	Lower Mammoth	150,000	1	.38½	.40
Cons. Mercur	100,000	5	4.50	4.53	Mammoth	400,000	5	2.15	2.18
Daisy	500,000	3			May Day	400,000	¾	.30	.31
Dalton	500,000	5	.04	.08	Northern Light	400,000	5	.02½	.05
Dalton & Lark	2,500,000	1	.03	.07	Ontario	150,000	100	5.50	
Daly	150,000	20	1.30	1.75	Sacramento	1,000,000	5	.33½	.34
Daly-West	150,000	20	20.10	20.20	Showers Cons	400,000	5	.05	
Dexter	200,000	5	.97	1.04	Silver King	150,000	20	60.00	
Eagle & Blue Bell	250,000	1	.90	.95	Star Consolidated	500,000	1	.63½	.63¾
Four Aces	250,000	1	.01½	.04	Sunbeam	250,000	1	.40	.50
Galena	100,000	10	.07½		Swansea	100,000	5	4.01	4.25
Geyser-Marion	300,000	5		.01¼	South Swansea	150,000	1	1.08	1.15
Golden Eagle	250,000	1	.00¼	.00¾	Utah	100,000	1	.83	.90
Grand Central	250,000	1	6.30	6.50	Valeo	200,000	10	.16	.18
Homestake					Yankee Consol'd	250,000	0.10	.19½	.20

TORONTO, ONT.

Name of Company.	Par Val.	Oct. 20. B.	Oct. 20. A.	Oct. 22. B.	Oct. 22. A.	Oct. 23. B.	Oct. 23. A.	Oct. 24. B.	Oct. 24. A.	Oct. 25. B.	Oct. 25. A.	Oct. 26. B.	Oct. 26. A.	Sales
Ontario :														
Golden Star	1	.01⅞	.02¼	.01⅝	.02¼	.01⅞	.02	.01⅞	.02¼	.02¼	.02⅜			3,500
Ham Reef	1	.02	.02⅜	.02	.02⅛	.02⅜	.02¼	.02¼	.02⅜	.02⅛	.02¼			21,780
Olive	1													
British Col.:														
Athabaska	1													
Big Three	1													
Cariboo M'k	1	.65	.75	.65	.75	.65	.75	.65	.73½	.68	.75			500
Crow's N. C.	25													
Dardanelles	1					.01	.02¼	.01¼	.02½	.01¼	.02¼			
Deer Trail	1	.02⅞	.03⅛	.02⅞	.03	.02¾	.03	.02¾	.03⅛	.02¾	.03⅛			8,000
Eve Star	1	.04	.06	.04	.06	.04	.06	.05	.07	.05½	.07			
Fairview	1	.02½	.03	.02⅝	.02⅝	.02¼	.02½	.02¼	.02⅞	.01¾	.02			36,500
Iron Mask	1	.22	.32	.20	.35	.55	.32	.25	.33	.35	.40			
Jim Blaine	1	.06	.09	.06	.10	.04	.10	.04	.09	.05	.10			
Knob Hill	1	.40	.49	.30	.50	.30	.50	.30	.50	.30	.50			
Mont Cristo	1													
Mont & Lon	0.24									.07				500
North Star	1	.90	.94	.91	.94	.93¾	.94½	.93¾	.95	.93	.95			1,000
Payne	1	.91	.96	.90	.95	.92	.93¾	.88	.91½	.85	.93			
Princess M	1	.02	.04	.02	.04	.02	.04	.01	.03	.02	.04			
Rambler	1	.26	.28½	.26	.28	.25	.28	.25½	.28	.23	.27			1,500
Republic	1	.75½	.77	.73	.76	.74	.75¼	.71½	.73½	.70	.73¾			1,500
Van Anda	1			.07½										4,000
Virtue	1	.43	.45½			.39	.45	.38	.38¾	.35½	.37½			16,000
War Eagle	1	1.06½	1.08¾	.96	1.02	1.07½	1.10	1.02½	1.08	1.02½	1.05			3,000
Waterloo	0.10	.02¾	.03½	.02¾	.03¼	.02¾	.03¾	.02¾	.03¼	.02¾	.03½			1,000
White Bear	1			.03¾		.03¾				.03				8,500
Winnipeg	1	.01	.04	.02¾	.03½	.02¾	.04	.02¾	.03¼	.02½	.03¾			1,000
Develop Co.:														
B.C.G. Field	1													
Can. G. F. S.	0.10	.07¾	.08½	.07½	.08¼	.07½	.08¼	.07½	.08	.07¾	.08			4,500

Total shares sold, 107,730.

SPOKANE, WASH.

Name of Company.	Par val.	Week Oct. 26. B.	Week Oct. 26. A.	Week Oct. 26. Sales.
Crystal		.03½	.05½	7,000
Deer Trail Con	$1	.02½	.03¼	44,000
Evening Star	1	.03	.03	924
Gold Ledge		.02	.03½	500
Jim Blaine	1	.03	.05	
Lone Pine-Surp. Con	1	.08¼	.08¾	9,400
Morning Glory	0.10	.07¾	.08¼	19,500

Name of Company.	Par val.	Week Oct. 26. B.	Week Oct. 26. A.	Week Oct. 26. Sales.
Mountain Lion		.25	.60	
Princess Maud	0.10	.01⅞	.02¾	5,000
Quilp	1	.16	.28	
Rambler Cariboo	0.25	.24	.27	
Reservation		.05	.07	
Sullivan		.14¼	.15½	2,000
Tom Thumb		.19	.21	6,500

STOCK QUOTATIONS

COLORADO SPRINGS, COLO.‡

Name of Company.	Par val.	Oct. 20. B.	Oct. 20. A.	Oct. 22. B.	Oct. 22. A.	Oct. 23. B.	Oct. 23. A.	Oct. 24. B.	Oct. 24. A.	Oct. 25. B.	Oct. 25. A.	Oct. 26. B.	Oct. 26. A.	Sales.
Acacia	$1	.38¼	.39	.38½	.38¾	.39⅛	.39⅛	.41	.41¼	.39⅝	.39⅞	.40¼	.40¾	58,000
Alamo	1	.12	.12¼	.12	.12¼	.12	.12¼	.12	.12⅛	.12	.12¼	.12	.12⅛	5,000
Am. Con	1	.06⅛	.06¼	.06⅜	.06⅝	.06⅞	.07¼	.07	.07¼	.07	.07¼	.07	.07⅛	23,000
Anaconda	1	.45	.45⅛	.45	.45¾	.45	.45¾	.43	.45	.43⅜	.44⅛	.43½	.45	8,700
Anchor	1	.02½	.01	.....	.....	.....	.03	.....	.03½	.....	.03½	.....	.....	.....
Anchoria L	1	.....	.....	.....	.....	.....	.....	.....	.....	.70	.84	.....	.....	.....
Antelope	1	.02½	.02⅝	.02⅛	.02¼	.02⅜	.....	.02⅜	.02⅝	.02⅜	.....	.02⅝	.03	12,000
Aola	1	.05	.....	.05½	.05⅝	.05⅜	.....	.05	.....	.05¾	.06	.05½	.05¾	3,000
Arcadian	1	.05	.....	.05	.05½	.05	.05¼	.05	.05⅜	.05	.05¼	.05	.05¼	.....
Arg'ntum J	1	.27	.28	.27	.....	.27	.28	.27	.28	.27¾	.29	.27¾	.29	1,300
Banner	1	.03	.....	.03	.....	.03¼	.04	.03	.04	.03¾	.04	.03½	.04	2,500
Battle Mt.C	1	.25½	.28	.25¾	.26⅝	.25⅞	.26	.25¾	.27	.25¼	.....	.25¾	.26	6,000
Ben Hur	1	.08	.08½	.....	.08½	.08	.08⅛	.....	.08¾	.07⅞	.08⅜	.....	.08⅛	1,000
Black Bell	1	.10	.12	.11	.13	.11	.12⅛	.12¼	.12¾	.12⅝	.12⅞	.12	.12⅞	1,000
Blue Bell	1	.14½	.14½	.14¼	.14¾	.14⅜	.14½	.14	.14⅝	.14	.14¼	.13⅝	.14	27,000
Bob Lee	1	.04⅜	.04½	.04⅜	.04¾	.04¼	.04⅝	.04¾	.04¾	.04⅝	.04⅝	.....	.05	10,000
Buckhorn	1	.06	.06¾	.06	.06⅜	.06	.06⅜	.06	.06½	.06	.06½	.....	.....	2,000
Cadillac	1	.02¼	.02½	.02¼	.02⅜	.02¼	.02½	.02⅜	.02½	.02⅜	.02⅝	.02½	.....	5,000
Central C'n	1	.09½	.09⅞	.09⅞	.10	.09⅝	.10	.09¾	.10	.....	.09¾	.09¼	.09⅝	56,000
Champion	1	.07	.07¼	.07	.07¼	.07⅛	.07¾	.07¼	.07¾	.07¼	.07⅝	.07⅝	.07⅞	20,000
Chicolo	1	.02½	.02⅝	.02⅝	.02¾	.02¾	.....	.02¾	.03	.02¾	.03	.02¾	.03	31,000
C. K. & N	1	.02⅜	.02⅝	.02⅛	.02⅜	.02¼	.02⅝	.02¼	.02⅝	.02⅝	.02⅝	.02¾	.....	10,000
C. C.Col'bia	1	.10¾	.11	.10¾	.10⅞	.10⅝	.11	.10¾	.10⅝	.10¾	.10⅞	.10¾	.10⅝	30,000
C. C. G. Ext	1	.16⅛	.17¼	.16⅛	.17⅛	.15¾	.16⅝	.16⅛	.17⅛	.16¾	.17	.16⅝	.16⅞	12,000
C. C. & Man	1	.10⅜	.10½	.10⅜	.....	.11⅛	.11¾	.10⅝	.11	.10¾	.10⅞	.10⅝	.10⅞	69,500
Copper Mt.	1	.04⅜	.04⅝	.04⅜	.04⅝	.04⅜	.04⅝	.04¾	.04½	.04⅜	.04⅝	.04¾	.4⅜	11,000
Creede & CC	1	.....	.15	.14	.15	.14	.14⅞	.14	.15	.14	.15	.18	.18¾	2,500
C. C. Con	1	.13⅜	.13¾	.13⅛	.....	.14	.13¾	.13⅜	.13⅝	.13⅛	.13⅜	.13¼	.....	21,000
Dante	1	.09⅛	.09⅝	.09⅜	.09⅛	.09⅛	.10	.09⅛	.10	.09⅛	.10	.09⅞	.....	24,000
Des Moines	1	.06⅛	.06¾	.06⅛	.....	.06¼	.....	.06¼	.....	.06¼	.07	.07⅛	.08⅛	4,500
Eclipse	1	.09	.09½	.08⅛	.09	.08¾	.09	.08¾	.09	.08⅞	.09	.08¾	.08⅝	9,000
Elkton Con	1	1.80	1.81	1.81½	1.81	1.82	1.82¼	1.81¾	1.83	1.85¼	1.85½	1.84	1.84½	71,080
El Paso G	1	.40	.42	.42	.42¼	.42	.42¾	.42	.....	.42½	.44	.42¾	.43½	11,100
Enterprise	1	.16¼	.17½	.....	.....	.....	.....	.....	.17	.....	.18	.17	.19	4,000
F. Rawlings	1	.22	.....	.22	.25	.23	.....	.22	.25	.23	.24	.22	.25	2,500
Findley	1	.15	.15⅜	.15⅛	.15½	.15	.15¼	.15⅛	.15½	.15⅜	.15⅝	.15¼	.15½	14,000
Garf. Coan	1	.07	.....	.07	.....	.07	.....	.07	.....	.07	.....	.07	.....	.....
Golden Fl	1	.....	.25	.....	.25	.10	.20	.....	.25	.10	.20	.....	.25	.....
Gold Hill	1	.03½	.03¼	.03½	.03¾	.03¼	.03¼	.03¼	.03⅜	.03¼	.03⅜	.03¼	.03⅜	65,000
Gold Sov'n	1	.07⅜	.08	.08½	.08¾	.04¾	.09	.03¾	.08⅝	.08⅜	.09	.09	.09½	88,000
Hayden	1	.01⅞	.02	.01⅝	.02	.01⅝	.02⅛	.01⅝	.02⅛	.02	.....	.02	.02½	1,000
Ida May	1	.25¼	.27	.26½	.28	.27	.27½	.26	.....	.25	.2[illegible]	.26	.....	6,000
Indep'udce	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Ing. Con	½	.20	.20¼	.20	.21½	.21½	.22	.21¼	.22	.21	.21¼	.21	.21¾	44,100
Isabella	1	.89¼	.89⅞	.89⅛	.90	.89⅛	.90	.89¼	.....	.92⅜	.92⅛	.90	.91	44,000
Jack Pot	1	.58	.59	.59	.60	.59	.60	.59	.60	.58½	.59½	.58½	.59½	8,200
Josephine	1	.01¾	.02	.01¾	.02	.01⅜	.02	.01¾	.....	.01⅜	.02⅜	.01⅜	.....	2,000
Key West	1	.02⅛	.01½	.02	.03½	.03	.03¼	.03⅜	.....	.03⅛	.03⅜	.03¾	.03½	17,000
Lexington	1	.13⅝	.13¾	.14	.15⅜	.15⅛	.15⅜	.14	.15⅜	.14	.15⅜	.13⅜	.13⅞	10,200
Magnet R	1	.03¼	.04	.04	.03½	.03¼	.04	.03¼	.04¼	.03¼	.04	.03½	.04	3,000
Margaret	1	.02⅜	.02½	.02	.02½	.02⅜	.02⅜	.02⅜	.02⅝	.02⅜	.02⅝	.02⅜	.....	20,000
Margery	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Matoa	1	.17	.17¾	.17½	.17¾	.16	.18	.17⅜	.17¾	.17½	.17⅝	.17½	.18	3,000
Midway	1	.05⅛	.05½	.05¾	.05⅝	.05⅛	.05⅝	.05⅞	.05¾	.05½	.05⅝	.05⅛	.05⅜	13,000
M. J. T	1	.03¾	.03½	.03¾	.03⅝	.03⅛	.03¾	.03⅛	.03⅝	.03⅜	.03¾	.03¼	.03¾	7,000
Mobile	1	.03⅛	.03¾	.03¾	.03⅛	.03¾	.03⅜	.03¾	.03⅝	.03¾	.03¾	.03⅜	.03⅜	8,000
Moll.Dwyer	1	.05⅛	.05⅜	.05⅛	.05¾	.05⅜	.05⅝	.05⅞	.05⅝	.05¾	.05⅝	.05⅞	.05⅛	38,000
Mollie Gib	1	.....	.25	.....	.24	.24	.26	.24¾	.26	.25	.27	.24	.26	.....
Monarch	1	.08⅜	.08⅝	.09	.09½	.....	.....	.09¼	.09¾	.09¾	.10	.09⅝	.10	5,000
Montreal	1	.01⅞	.05¾	.01⅝	.05¾	.01¾	.05⅛	.05	.05½	.05	.....	.05	.....	.....
Moon-A'cr	1	.30	.....	.31	.....	.31	.40	.35½	.....	.30	.....	.30	.....	2,000
Morning S	1	.01¼	.04½	.04½	.04¾	.04⅛	.04⅜	.04⅛	.04¼	.04⅛	.04¼	.04¼	.04½	17,000
Mtn.Beauty	1	.07½	.08	.08	.08⅜	.08	.08¾	.08⅝	.08¾	.08⅜	.08¾	.08⅛	.08¼	10,000
Mt. Rosa	1	.51	.....	.51	.....	.50	.....	.51	.....	.60	.70	.60	.65	500
National	1	.02½	.08⅜	.08¼	.08⅜	.08¼	.08⅜	.08¼	.08⅝	.08¼	.08⅝	.08⅛	.08¾	69,000
Nellie V	1	.07⅜	.07⅝	.07½	.07¾	.07¾	.08	.07⅞	.08⅜	.07¾	.08	.07¾	.08	17,000
New Haven	1	.08⅜	.08⅝	.08⅜	.08⅝	.09¼	.09¼	.08¾	.09⅛	.08¾	.08⅞	.09	.09⅛	133,000
Olive B'nch	1	.04⅞	.05⅛	.05	.05¼	.05	.05¼	.05¼	.05½	.05½	.....	.05⅝	.05⅞	6,000
Oriole	1	.04¼	.04½	.04¼	.04½	.04¼	.04¾	.04¼	.04¾	.04⅜	.....	.04½	.04⅝	5,000
Orphan	1	.16½	.17	.16⅜	.17	.16	.17	.16	.17	.17	.....	.....	.....	5,000
Pelican	1	.....	.....	.02⅜	.02⅝	.02⅜	.02⅝	.02¼	.03	.02⅜	.....	.02⅝	.02⅞	3,000
Pharmacist	1	.11¼	.12	.12	.....	.11⅞	.12⅜	.11⅝	.12	.11⅞	.12	.11¾	.12	26,500
Pilgrim	1	.09	.10	.09¼	.10	.09⅝	.10	.10	.10⅝	.10	.12	.10	.....	4,000
Pinnacle	1	.16⅜	.....	.17¼	.17½	.17⅜	.17⅝	.13½	.19	.18	.19¾	.17½	.18¾	12,300
Portland	1	3.25	.....	3.30	3.40	3.35	3.40	3.35	3.40	3.30	3.40	3.37	3.40	2,476
Prince Alb.	1	.04½	.05	.05	.05½	.05	.05⅛	.05	.06¼	.05	.05½	.05	.05½	12,000
Princess	1	.05¼	.05¾	.05¼	.05⅜	.05⅛	.....	.05⅞	.06¼	.05⅝	.....	.05¼	.06	2,000
Progress	1	.05⅛	.06	.05⅜	.06	.05⅜	.05½	.05⅜	.06	.05½	.06	.05⅝	.06	36,500
Pythias	1	.04½	.04⅝	.04⅜	.....	.04¾	.04⅝	.06	.06⅛	.06	.06⅛	.05⅝	.06	133,500
Republic	1	.05½	.05¾	.05½	.06¼	.06⅞	.....	.07	.07⅜	.06⅝	.07	.06⅜	.07	15,000
Rob't Burns	1	.05	.05¼	.05½	.05¾	.05⅞	.....	.05¼	.06	.05⅜	.05⅞	.05½	.....	4,000
Rose Maud	1	.07⅛	.07⅜	.07¼	.05¾	.08¼	.08⅛	.08¾	.08⅝	.08½	.08¾	.08¼	.08¾	25,000
Rose Nicol	1	.10¾	.11¼	.11¾	.11½	.09½	.12	.....	.12	.11¾	.12	.11⅛	.12¼	10,000
Silver Gold	1	.02⅜	.02¼	.02¼	.02⅜	.02¼	.02⅜	.01⅝	.02⅛	.02¼	.....	.02¼	.02½	8,000
Specimen	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Theresa	1	.05½	.05⅝	.....	.....	.....	.....	.06⅛	.06⅝	.06⅛	.07	.....	.....	1,000
Trachyte	1	.....	.07	.....	.07	.05⅝	.06⅜	.05¾	.06¼	.05¾	.06¾	.05¾	.06⅛	61
Uncle Sam	1	.04⅜	.04½	.04¼	.04½	.04¼	.04½	.04¼	.04¾	.04⅜	.04½	.04¼	.04½	4,000
Union	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Va. M	1	.09¼	.10	.....	.10	.....	.10	.09¼	.10	.09	.10	.09¼	.10	.....
Vindicator	1	1.33	1.45	1.34	1.37	1.35	1.36	1.35	.....	1.32	1.38	1.33	1.37	2,900
Work	1	.25	.25½	.25	.26	.26	.26½	.26	.26½	.22½	.27	.26½	.26⅞	16,000
Zenobia	1	.12	.13	.12	.13	.12	.13	.....	.....	.12	.13	.12	.13	.....

‡ Colorado Springs Mining Stock Exchange. Total sales, 1,524,417 shares.

MONTREAL, CANADA.*

Name of Company.	Par val.	Week, Oct. 29. H.	Week, Oct. 29. L.	Sales.
Big Three	$1	.02¼	.01½	.....
California	1	.06	.02½	3,500
Can. Gold Fields	0.10	.09¾	.06	4,000
Decca	1	.....	.....	.....
Deer Trail Con	1	.03¼	.02½	4,500
Evening Star	1	.07½	.08	.....
Golden Star	1	.05	.01	.....
Gold Hills Dev	1	.03	.01	.....
Knob Hill	1	.50	.30	1,000
Monte Christo	1	.03	.01	.....

Name of Company.	Par val.	Week, Oct. 29. H.	Week, Oct. 29. L.	Sales.
Montreal G. F	$1	.03½	.02	.....
Montreal-London	0.24	.8¼	.06	12,000
Okanogan	.....	.....	.....	.....
Oregon	1	.17	.....	1,000
Payne	1	.96	.85	500
Rambler-Cariboo	1	.84	.20	.....
Republic Con	1	.76	.70	1,000
Slocan-Sovereign	1	.11	.05	.....
Virtue	1	.44	.34	11,500
War Eagle	1	1.19	1.00	1,000

* Montreal Stock Exchange. Total sales, 40,000 shares.

MEXICO. Oct. 19.

Name of Company.	No. of shares.	Last div'd.	Prices. Op'g.	Prices. Cl'g.
Durango:				
Barradon y Cab	2,400	.....	$40	$30
Candelaria de Pan	1,200	.....	20	20
Capuzaya Guan	2,400	.....	15	12
Restauradora	10,000	.....	10	20
Guanajuato.				
Angustias	2,400	5.00	115	105
Cinco Senores y An.	2,000	15.00	270	260
Guadalupe Hacie'a.	10,000	2.00	205	200
Trinidad, aviadora	2,000	.....	6	7
do. aviada	400	.....	7	10
Zona Minera de Poz	2,400	.....	6	8
Hidalgo:				
Amistad y Concord	9,600	1.47	20	23
Arevalo	720	.....	200	200
Bartolome de Med	2,000	2.00	65	70
Carmen	1,100	7.75	200	150
Luz Ca Maravillas	800	.....	120	100
Pabellon	800	27.89	20	10

Name of Company.	No. of shares.	Last div'd	Prices. Op'g.	Prices. Cl'g.
Hidalgo:				
Real del Monte	2,554	10.00	600	550
San Francisco Hc.	6,000	1.00	90	105
Soledad	960	5.00	270	230
Sorpresa	960	7.50	290	210
Union Hacienda	2,000	5.00	235	240
Mexico:				
Coronas	500	.....	75	75
Esperanza y An	3,000	10.00	1,080	1,000
Michoacan:				
Luz de Borda ava.	4,000	.....	16	26
S. Luis Potosi:				
Concep. y An	2,400	.....	260	220
Zacatecas:				
Asturiana y An	2,500	10.00	120	150
Cabezon	2,400	.....	15	10
C'delar de Pinos	2,500	.....	220	150
Palma de Somb	2,400	.....	40	30

DENVER, COLO.‡

Name of Company.	Par val.	Oct. 20 B.	Oct. 20 A.	Oct. 22. B.	Oct. 22. A.	Oct. 23. B.	Oct. 23. A.	Oct. 24. B.	Oct. 24. A.	Oct. 25. B.	Oct. 25. A.	Oct. 26. B.	Oct. 26. A.	Sales.
Alamo	1	.12	.....	.12	.....	.12	.....	.12	.....	.12	.....	.12½	.....	9,000
Anaconda	1	.....	.....	.....	.....	.45	.....	.44	.46	.43¾	.....	.44	.....	1,000
Arg. J	5	.....	.....	.....	.....	.....	.39	.....	.....	.....	.....	.27½	.....	2,000
Dictator	1	.02	.02¾	.02¼	.02½	.02¼	.03⅜	.02⅜	.....	.02⅜	.....	.02⅜	.02½	27,000
Elkton	1	1.80½	1.82	1.82	1.83	1.82	1.83	1.84¾	1.85½	.....	.....	.....	.....	5,500
Findley	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Ironclad	1	.....	.....	.05⅝	.06	.....	.....	.....	.....	.05½	.06	.....	.....	1,000
Isabella	1	.89¾	.....	.89½	.....	.90	.....	.....	.90½	.93½	.94	.....	.....	8,000
Magnet R'k	1	.03¾	.04½	.....	.....	.03¾	.04	.03¾	.04	.03¾	.04	.03¾	.04	6,000
New Haven	1	.08½	.08⅜	.09¼	.08¾	.09¼	.09⅝	.08⅝	.08¾	.08¾	.09	.08⅝	.09	25,000
New Zeal'd.	1	.42⅜	.....	.41	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Pharmacist	1	.11¾	.12	.11¾	.12	.....	.....	.....	.....	.....	.....	.....	.12	25,000
Puritan	1	.009	.009½	.009	.....	.009	.009½	.009	.009½	.009	.009½	.009	.01	30,000
Republic	1	.....	.....	.06½	.07	.06¾	.....	.06¾	.07¼	.....	.....	.07	.07¼	9,000
Wire Gold	1	.....	.....	.06¾	.....	.....	.....	.06½	.....	.....	.....	.....	.....	.....

‡ Official Quotations Denver Stock Exchange. Total sales, 143,500 shares.

PARIS. Oct. 11.

Name of Company.	Country.	Product.	Capital Stock.	Par value.	Latest divs.	Prices. Opening.	Prices. Closing.
			Francs.	Fr.	Fr.	Fr.	Fr.
Aciéries de Creusot	France	Steel mfrs.	27,000,000	2,000	85.00	1,770.00	1,740.00
" " Firminy	"	" "	3,000,000	500	175.00	3,675.00	3,675.00
" " Fives-Lille	"	" "	12,000,000	500	.....	528.00	501.00
" " Huta-Bank	Russia	Iron & steel	.....	500	.....	4,500.00	4,450.00
" " la Marine	France	Steel mfrs.	30,000,000	500	60.00	1,599.00	1,592.00
Anzin	"	Coal	.....	.....	260.06	6,700.00	6,715.00
Boleo	Lower Cal.	Copper	.....	500	176.00	2,690.00	2,680.00
Briansk	Russia	Coal & Iron	.....	500	.....	758.75	.....
Champ d'Or	S. Africa	Gold	3,375,000	25	3.75	38.25	36.50
Courrieres	France	Coal	600,000	800	90.00	2,850.00	2,900.00
Dombrowa	Russia	"	.....	500	12.50	1,025.00	1,025.00
Donetz	"	Steel	.....	.....	.....	880.00	880.00
Dynamite Centrale	France	Explosives	.....	500	22.50	437.00	435.00
Escombrera-Bleyberg	Spain	Lead	.....	500	70.00	1,220.00	1,200.00
Fraser River	Brit. Col'mb.	Gold	250,000	25	.....	9.00	8.25
Huanchaca	Bolivia	Silver	40,000,000	125	5.00	149.50	145.00
Laurium	Greece	Zinc & lead	16,300,000	500	30.00	502.00	498.00
Malfidano	Italy	Zinc	12,500,000	500	50.00	1,144.00	1,145.00
Metaux, Cie. Fran. de	France	Metal d'iers	25,000,000	500	10.00	530.00	520.00
Mokta-el-Hadid	Algeria	Iron	18,312,500	500	35.00	1,120.00	1,105.00
Napthe Baku	Russia	Petroleum	.....	.....	.....	774.75	746.00
Napthe Nobel	"	"	.....	.....	.....	605.00	607.50
" " parts	"	"	.....	.....	.....	12,150.00	12,150.00
Nickel	N. Caled'nia	Nickel	10,000,000	250	17.50	505.00	515.00
Penarroya	Spain	Coal, etc	.....	500	100.00	2,625.00	2,800.00
Rebecca	Colo'do, U.S.	Gold	5,000,000	25	.....	3.50	3.50
Salines de l'Est	France	Salt	.....	500	5.00	220.00	220.00
Salines du Midi	"	"	.....	500	25.00	915.00	925.00
Vielle Montagne	Belgium	Zinc	9,000,000	80	36.00	740.00	725.00

LONDON Oct. 19.

Name of Company.	Country.	Author-ized capital.	Par value.	Last dividend. Amt.	Last dividend. Date.	Quotations. Buyers	Quotations. Sellers.
			£ s. d.	s.d.		£ s. d.	£ s. d.
Alaska Goldfields	Alaska	£300,000	1 0 0	2 1	Mar., 1899	16 3	18 9
Alaska Mexican, g	"	200,000	1 0 0	0 4.8	Aug. 1900	18 9	1 1 3
Alaska-Treadwell, g	"	1,000,000	5 0 0	1 6	" "	4 17 6	5 2 6
Anaconda, c., s	Montana	6,000,000	5 0 0	8 2	Oct., 1900	9 7 6	9 12 6
De Lamar, g., s	Idaho	400,000	1 0 0	0 6	May, 1900	4 0	5 0
El Oro	Mexico	1,000,000	1 0 0	1 0	Aug., 1900	1 3 9	1 6 3
Grand Central, g., s	Mexico	300,000	1 0 0	2 0	Jan., 1900	11 3	13 9
Hall Sm. & Mg., c., s	British Col	250,000	1 0 0	.....	.....	4 6	5 6
Le Roi, g	" "	1,000,000	5 0 0	5 0	Nov., 1899	8 0 0	8 2 6
Lillie, g	Colorado	250,000	1 0 0	2½	Apr., 1900	7 6	15 0
Montana, g., s	Montana	660,000	1 0 0	6	Apr., 1899	8 0	4 0
Mountain Copper	California	1,250,000	5 0 0	9 0	Oct., 1900	4 17 6	5 2 6
Newfoundland, c	Newfoundland	250,000	1 0 0	.....	.....	2 6	7 6
Palma ejo & Mexican, g	Mexico	700,000	1 0 0	.....	.....	2 9	3 3
Stratton's Independence	Colorado	1,100,000	1 0 0	2 0	Oct., 1900	2 15 0	2 17 6
Copiapo, c	Chile	200,000	2 0 0	4 0	July, 1900	3 18 9	4 1 3
Frontino & Bolivia, g	Colombia	140,000	1 0 0	1 6	Oct., 1899	1 15 0	2 0 0
St. John del Rey, g	Brazil	600,000	1 0 0	rts.	July, 1900	1 5 0	1 6 3
Utah Con.,g.(Highl'nd Boy)	Utah	300,000	1 0 0	rts.	Mar., 1898	6 0 0	6 5 0
Velvet, g	British Col'mbia	100,000	1 0 0	.....	.....	1 3 9	1 6 3
Ymir, g	"	200,000	1 0 0	1 0	Nov., 1899	1 13 9	1 16 3
British Am. Corp	"	1,500,000	1 0 0	2 0	Mar., 1900	17 0	17 6
Linares, l	Spain	45,000	3 0 0	14 0	Sept. "	9 0 0	10 0 0
Mason & Barry, c., sul	Portugal	420,000	2 0 0	£1	Oct., 1900	2 17 6	3 2 6
Rio Tinto, c	Spain	1,625,000	5 0 0	40 0	Nov., "	58 10 0	58 15 0
" " pref	"	1,625,000	5 0 0	2 6	" "	6 2 6	6 7 6
Tharsis, c	"	1,250,000	2 0 0	15 0	Apr., 1900	8 15 0	9 0 0
Assoc. Gold Mines	W. Australia	500,000	1 0 0	1 6	Jan., 1900	3 7 6	3 10 0
Broken Hill Prop., s	N. S. Wales	884,000	8 0	1 6	Nov., 1900	2 11 0	2 12 0
Great Boulder Prop	W. Australia	175,000	2 0	6	Aug., 1900	1 19 3	1 19 9
Hannan's Brownhill, g	"	140,000	1 0 0	7 6	Oct., 1900	4 12 6	4 15 0
Ivanhoe Gold Corp	"	1,000,000	5 0 0	5 0	Oct., 1900	9 16 3	9 18 9
Kalgurlie, g	"	120,000	1 0 0	rts.	Oct., 1899	5 11 3	5 13 9
Lake View Consols, g	"	250,000	1 0 0	5 0	Aug., 1900	11 15 0	11 17 6
Mt. Lyell M. & R., l., c	Tasmania	900,000	3 0 0	2 0	Oct., 1900	7 2 6	7 7 6
Mt. Morgan, g	Queensland	1,000,000	1 0 0	7	Sept., 1900	5 2 6	5 5 0
Wall's, g	New Zealand	320,000	1 0 0	2 6	Sept., 1900	10 16 3	10 18 9
Champion Reef, g	Colar Fields	220,000	10 0 0	4 0	Sept., 1900	5 13 9	5 16 3
Mysore Gold, g	"	250,300	10 0 0	4 0	Nov., 1900	6 0 0	6 2 6
Nundyroog, g	"	242,000	1 0 0	2 0	" "	3 6 3	3 8 9
Ooregum, g	"	145,000	1 0 0	3 6	Aug., 1900	3 16 3	3 18 9
" pref. g	"	120,000	1 0 0	8 6	" "	4 16 3	4 18 9
British S. Africa, chartered	So. Africa	5,000,000	1 0 0	rts.	May, 1899	3 6 3	3 7 6
Cape Copper, c	"	600,000	1 0 0	5 0	July, 1900	6 2 6	6 5 0
" " pref	"	150,000	2 0 0	5 0	" "	5 7 6	5 12 6
City & Suburban (New), g	Transvaal	1,360,000	4 0 0	8 0	Aug., 1899	5 5 0	5 10 0
Con. Deep Level, g	"	200,000	1 0 0	x all	June, 1898	1 2 6	1 7 6
Crown Reef, g	"	120,000	1 0 0	18 0	Nov., 1899	15 0 0	15 10 0
De Beers Con., d	Cape Colony	3,950,000	5 0 0	£1	Sept., 1899	28 12 6	28 17 6
Ferreira, g	Transvaal	30,000	1 0 0	30 0	Aug., 1899	21 0 0	22 0 0
Geldenhuis Deep, g	"	350,000	1 0 0	8 0	" "	9 15 0	10 5 0
Geldenhuis Est., g	"	200,000	1 0 0	10 0	" "	6 11 3	6 13 9
Henry Nourse, g	"	125,000	1 0 0	10 0	Apr., 1900	8 12 6	8 17 6
Jagersfontein, d	Orange Fr. St.	1,000,000	5 0 0	6 0	Sept., 1900	16 10 0	17 0 0
Johannesburg Con. Invet	So. Africa	2,750,000	1 0 0	2 0	Aug., 1899	2 0 0	2 1 3
Jubilee, g	Transvaal	50,000	1 0 0	5 0	Sept., 1899	5 10 0	6 0 0
Langlaagte Estate, g	"	470,000	1 0 0	3 0	Aug., 1899	3 6 3	3 8 9

DIVIDENDS.

GOLD, SILVER, COPPER, ZINC, LEAD AND QUICKSILVER COMPANIES.

Number.	Name and Location of Company		Author-ized Capital Stock.	Shares Issu'd No.	Par Val	Dividends. Paid, 1900.	Total to Date.	Latest. Date.	Amt.
1	Acacia, g.	Colo.	$1,500,000	1,500,000	$1	$30,000	$30,000	Sept.. 1900	.01
2	Adams, s.l.c.	Colo.	1,500,000	150,000	10	7,500	701,000	Nov.. 1900	.05
3	Ætna Con., q.	Cal..	500,000	100,000	5	30,000	225,000	April. 1900	.15
4	Alaska-Mexican, g.	Alask	1,000,000	180,000	5	72,000	501,031	Oct.. 1900	.10
5	Alaska-Treadwell, g.	Alask	5,000,000	200,000	25	300,000	4,520,000	Oct.. 1900	.37½
6	Alliance, g.	Colo..	500,000	450,000	1	.....	31,500	Dec.. 1899	.07
7	Amalgamated, c.	Mont.	75,000,000	750,000	100	6,000,000	7,500,060	Oct.. 1900	2.00
8	Amanda, g.	Colo..	1,000,000	1,000,000	1	10,000	10,000	June. 1900	.01
9	Amazon, g.	Colo..	600,000	600,000	1	102,000	121,882	May.. 1900	.10
10	American, g. s. c. l.	Colo..	3,000,000	300,000	10	.....	446,000	Dec.. 1899	.04
11	Amer. Sm & Ref., pref.	U. S..	32,500,000	325,000	100	2,113,803	2,682,553	Oct.. 1900	1.75
12	Am. Zinc, Lead & Sm.	Mo...	2,500,000	60,000	25	60,000	180,000	Jan.. 1900	1.00
13	Anaconda, c.	Mont.	30,000,000	1,200,000	25	4,800,000	16,950,000	Oct.. 1900	2.00
14	Anchoria-Leland, g.	Colo..	600,000	600,000	1	.....	198,000	April. 1899	.03
15	Anglo-Mexican, g.	Mex..	2,001,625	400,230	5	.....	1,825,048	Dec.. 1899	.24
16	Apollo Con., g.	Alask	1,000,000	100,000	10	70,000	210,000	Jan.. 1900	.07
17	Argonaut, g.	Cal..	2,000,000	200,000	10	70,000	490,000	May.. 1900	.05
18	Arizona, c.	Ariz..	3,190,550	.....	....	576,429	1,464,848	Sept.. 1900	.84
19	Associated, g.	Colo..	1,250,000	1,250,000	1	.....	84,000	Feb.. 1899	.01
20	Atlantic, c.	Mich.	1,000,000	40,000	25	80,000	860,000	Feb.. 1900	2.00
21	Bald Butte, g. s.	Mont.	250,000	250,000	1	67,500	837,148	Aug.. 1900	.03
22	Boston-Aurora, pref.	Mo...	800,000	32,000	25	37,120	66,160	May.. 1900	.50
23	Boston & California.	Cal..	600,000	600,000	1	.....	72,000	June. 1899	.06
24	Boston & Colo. Smelting	Colo..	750,000	15,000	50	45,000	315,000	Oct.. 1900	.75
25	Boston Duenweg, z.	Mo...	1,000,000	40,000	10	24,000	56,000	June.. 1900	.10
26	Boston Get There, z.	Mo...	250,000	22,500	10	9,000	20,250	April. 1900	.10
27	Boston Gold-Copper Sm.	Colo..	1,000,000	1,000,000	1	25,000	25,000	Aug.. 1900	.02½
28	Boston-Little Circle, z.	Mo-K.	1,000,000	100,000	10	12,500	87,500	Mar.. 1900	.12½
29	Boston & Mont. Con., c.s.g	Mont.	3,750,000	150,000	25	6,450,000	20,975,000	Nov.. 1900	15.00
30	Boston Phila., z. l.	Kas..	200,000	20,000	10	2,000	2,000	May.. 1900	.10
31	Boston Providence, z., pf	Mo...	150,000	15,000	10	6,000	17,242	Aug.. 1900	.05
32	Boston, q.	Cal...	1,000,000	100,000	10	10,000	20,000	Jan.. 1900	.10
33	Boston Springfield, z.	Mo...	500,000	20,000	25	15,000	15,000	June.. 1900	.25
34	Boston Sunflower, z.	Mo...	150,000	15,000	10	.....	4,500	Oct.. 1899	.30
35	Breece.	Colo..	5,000,000	200,000	25	20,000	90,000	Sept.. 1900	.05
36	Buffalo Hump, g. s. l.	Idaho	3,000,000	250,000	10	250,000	250,000	Nov.. 1900	.10
37	Bullion-Beck & Champ.	Utah.	1,000,000	100,000	10	60,000	2,498,400	June. 1900	.10
38	Bunker Hill & Sullivan.	Idaho	3,000,000	300,000	10	210,000	1,011,000	Oct.. 1900	.07
39	Calumet & Hecla, c.	Mich.	2,500,000	100,000	25	5,000,000	71,850,000	Sept.. 1900	20.00
40	Cariboo-McKinney, g.	B. Col	1,250,000	1,250,000	1	86,500	478,087	Oct.. 1900	.01½
41	Centen'l-Eureka, g.s.l.c.	Utah.	5,000,000	100,000	25	267,700	2,417,700	Oct.. 1900	.50
42	Center Creek, l. z.	Mo...	1,000,000	100,000	10	10,000	10,000	Feb.. 1900	.10
43	Central Lead, l.	Mo...	1,000,000	10,000	100	55,000	192,000	Oct.. 1900	.50
44	Champion, g. s.	Cal...	340,000	34,000	10	.....	321,700	Nov.. 1899	.25
45	Cloverdale, z.	Mo...	1,000,000	100,000	10	60,000	80,000	July.. 1900	.20
46	Colonial, l.	Mo...	1,000,000	1,000,000	1	.....	10,000	Aug.. 1899	.01
47	Colorado Smelting.	Mont.	1,000,000	100,000	10	.....	1,945,000	Jan.. 1899	1.00
48	Columbia, l.	Mo...	500,000	48,500	10	14,550	14,550	Oct.. 1900	.05
49	Commonwealth, z., pref.	Mo ..	500,000	100,000	5	30,000	50,000	June. 1900	.05
50	Consolidated Gold Mines	Colo..	1,000,000	1,000,000	1	90,000	100,000	Oct.. 1900	.01
51	Con. Mercer Gold Mines.	Utah.	5,000,000	1,000,000	5	225,000	1,591,000	Nov.. 1900	.11
52	Consolidated, z. l., pf.	Mo...	400,000	400,000	1	8,000	8,000	Jan.. 1900	.20
53	Cordell, z. l.	Mo...	300,000	60,000	5	27,000	30,000	Sept.. 1900	.05
54	Cripple Creek Con., g.	Colo..	2,000,000	2,000,000	1	160,000	160,000	Mar.. 1900	.08
55	Cræsus, g.	Cal...	1,000,000	190,000	5	64,000	113,100	Oct.. 1900	.10
56	Crowned King, g. s. l.	Ariz .	6,000,000	600,000	10	.....	242,760	May.. 1899	.02
57	Daly West, g.	Utah.	3,000,000	150,000	20	412,500	532,500	Oct.. 1900	.25
58	Deer Trail Con., g.	Wash	3,000,000	3,000,000	1	.....	55,000	Dec.. 1899	.00½
59	De Lamar, g. s.	Idaho	2,000,000	400,000	5	48,000	2,394,000	May . 1900	.12
60	Dixie, g.	Utah.	125,000	125,000	1	10,000	10,000	April. 1900	.02
61	Doe Run, l.	Mo...	1,500,000	1,000,000	100	50,000	402,073	Oct.. 1900	.50
62	Ducktown, c. i. sul. (ord)	Tenn.	374,000	7,480	50	.....	95,744	Dec.. 1899	9.60
63	Ducktown (founder).	Tenn.	1,000	200	5	.....	41,160	Dec.. 1899	162.00
64	Eldorado, g.	Cal...	1,000,000	100,000	10	.....	10,000	July.. 1899	.10
65	Elkton Con., g.	Colo..	3,000,000	2,500,000	1	183,750	904,461	Sept.. 1900	.03
66	Empire State-Idaho.	Idaho	1,000,000	98,514	10	295,541	613,579	Oct... 1900	.30
67	Fanny Rawlings, g. s.	Colo..	1,000,000	1,000,000	1	.....	20,000	Aug.. 1899	.01
68	Favorite, g.	Colo..	1,200,000	1,200,000	1	48,000	48,000	April. 1900	.04
69	Florence, s.	Mont.	2,500,000	440,000	5	22,000	252,000	April. 1900	.05
70	Frisco Con., l. s.	Idaho	2,500,000	500,000	5	.....	920,000	Nov.. 1899	.25
71	Garfield Con., g.	Colo..	1,200,000	1,200,000	1	.....	34,000	May.. 1899	.01
72	Gemini.	Utah.	500,000	5,000	100	50,000	700,000	Aug.. 1900	10.00
73	Gold Belt, g.	Colo..	1,250,000	1,250,000	1	112,500	112,500	Aug.. 1900	.09
74	Gold Coin of Victor, g.	Colo..	1,000,000	1,000,000	1	200,000	560,000	Oct.. 1900	.02
75	Gold Deposit, g.	Colo..	500,000	500,000	1	10,000	10,000	Mar.. 1900	.02
76	Gold King, g.	Colo..	1,000,000	936,850	1	112,421	178,001	Oct.. 1900	.03
77	Golden Cycle, g.	Colo..	1,000,000	200,000	5	100,000	358,500	Oct.. 1900	.05
78	Golden Eagle, g.	Colo..	500,000	500,000	1	5,000	25,000	June. 1900	.01
79	Grand Central, g.	Utah.	250,000	250,000	1	.....	666,250	Sept.. 1899	.24
80	Grand Gulch.	Ariz..	250,000	240,000	1	9,600	9,600	April. 1900	.01
81	Grass Valley Expl.	Cal...	100,000	30,000	2	37,500	67,500	May.. 1900	.25
82	Greater Gold Belt, g.	Col ..	5,000,000	3,800,000	1	76,000	76,000	June. 1900	.02
83	Gwin, g.	Cal .	1,000,000	100,000	10	30,000	111,500	Oct... 1900	.10
84	Hall Mg. & Sm.	B. Col	1,250,000	250,000	5	.....	120,000	May.. 1899	.24
85	Hecla, s.	Idaho	1,000,000	1,000,000	1	20,000	20,000	July.. 1900	.02
86	Hecla Con., s. l.	Mont.	1,500,000	30,000	50	15,000	2,205,000	Oct.. 1900	.05
87	Hidden Treasure, g.	Cal...	360,000	36,000	10	28,800	457,452	Sept.. 1900	.10
88	Holy Terror, g.	S. D..	500,000	500,000	1	5,000	172,000	Jan.. 1900	.01
89	Home, g.	Colo..	50,000	50,000	1	100,000	100,000	July.. 1900	.50
90	Homestake, g.	S. D.	21,000,000	210,000	100	1,050,000	9,153,750	Oct... 1900	.50
91	Horn-Silver, g. s. c.z.l.	Utah.	10,000,000	400,000	$25	$20,000	$5,279,000	June.. 1900	.05
92	Idaho, g.	Idaho	1,000,000	1,000,000	1	8,188	8,188	April. 1900	.01
93	Idaho, s. l.	B.Col	500,000	500,000	1	.....	202,000	Jan.. 1899	.05¾
94	Independence Con.	Colo..	2,500,000	2,500,000	1	100,000	100,000	Aug.. 1900	.04
95	International, z.	Mo...	1,000,000	1,000,000	1	26,427	26,427	July . 1900	.01
96	Iowa, g. s. l.	Colo..	1,666,667	1,666,667	1	39,334	136,834	June. 1900	.00¾
97	Isabella, g.	Colo..	2,250,000	2,250,000	1	157,500	697,500	Sept.. 1900	.01
98	Jack Pot, g.	Colo..	1,250,000	1,250,000	1	.....	175,000	Dec.. 1899	.06
99	Jamison, g.	Cal ..	3,900,000	390,000	10	.....	50,700	April. 1899	.10
100	Klondike Bonanza, Ltd.	Klond	750,000	52,750	5	.....	12,000	Aug .. 1899	.24
101	La Fortuna, g.	Ariz..	250,000	250,000	1	232,500	895,000	Oct... 1900	.05
102	Lake City, g.	Colo..	50,000	50,000	1	3,875	3,875	May . 1900	.01
103	Last Chance, s. l.	B.Col	500,000	500,000	1	.....	45,000	Apr.. 1899	.05
104	Last Dollar, g.	Colo..	1,500,000	1,500,000	1	60,000	90,000	July.. 1900	.02
105	Le Roi, g.	B.Col	5,000,000	200,000	5	.....	1,305,000	Nov .. 1899	1.20
106	Lillie, g.	Colo..	1,250,000	250,000	5	45,117	349,183	April. 1900	.05
107	Little Tiger, g.	Cal...	500,000	500,000	1	15,000	47,500	Feb.. 1900	.01½
108	Madison, g.	Colo..	1,250,000	1,050,000	1	35,000	35,000	June. 1900	.03½
109	Magnolia.	Colo..	1,250,000	1,100,000	1	187,000	187,000	July.. 1900	.17
110	Mammoth, g. s. c.	Utah	10,000,000	400,000	25	180,000	1,790,000	Oct... 1900	.05
111	Marion Con., g.	Colo..	5,000,000	500,000	10	.....	300,000	May.. 1899	.01
112	Mary McKinney, g.	Colo..	1,000,000	1,000,000	1	150,000	180,000	Oct... 1900	.03
113	Midget, g.	Colo..	1,000,000	1,000,000	1	15,000	15,000	May.. 1900	.15
114	Modoc, g. s.	Colo..	500,000	500,000	1	50,000	195,000	Oct... 1900	.01
115	Monarch, g.	Colo..	1,000,000	1,000,000	1	120,000	120,000	April. 1900	.12
116	Montana, Ltd., g. s.	Mont.	3,300,000	657,128	5	.....	453,700	April. 1899	.12
117	Montana Ore Purchas'g.	Mont.	2,500,000	80,000	25	160,000	1,520,000	May.. 1900	1.60
118	Morning Star Drift, g.	Cal...	240,000	2,400	100	7,200	854,490	Sept.. 1900	3.00
119	Morse, g.	Colo..	1,250,000	1,250,000	1	.....	215,650	May.. 1899	.12
120	Mountain, c.	Cal ..	6,250,000	250,000	25	1,200,000	2,373,750	Oct... 1900	2.16
121	Mt. Diablo, s.	Nev..	5,000,000	50,000	100	5,271	260,271	Jan.. 1900	.10
122	Mt. Rosa, g.	Colo..	1,000,000	1,000,000	1	.....	75,000	Dec.. 1899	.04
123	Mt. Shasta, g.	Cal...	100,000	20,000	5	.....	6,000	May.. 1899	.30
124	Moulton, g.	Mont.	2,000,000	400,000	5	.....	500,000	Oct... 1899	.05
125	Napa Con., q.	Cal ..	700,000	100,000	7	60,000	1,200,000	Oct... 1900	.10
126	National Lead, com.	U. S..	15,000,000	149,054	100	149,054	1,341,486	Mar.. 1900	1.00
127	National Lead, pf.	U. S .	15,000,000	149,040	100	782,460	10,318,460	Sept . 1900	1.75
128	New Idria, q.	Cal...	500,000	100,000	5	80,000	250,000	Oct... 1900	.20
129	N. J. & Mo., z.	Mo...	250,000	2,500	100	11,000	11,000	June.. 1900	2.00
130	New York, z.	Kas. .	700,000	28,000	25	.. ..	6,500	Oct... 1899	.25
131	N.Y.& Hon Rosario, s.g.	C. A..	1,500,000	150,000	10	180,000	1,340,000	Oct... 1900	.20
132	North Star Mines.	Cal ..	5,000,000	250,000	10	.....	50,000	Nov.. 1899	.20
133	Old Colony Zinc & Sm.	Mo...	1,100,000	69,909	10	68,276	68,276	Oct... 1900	.25
134	Omega, g.	Colo..	1,500,000	1,212,550	1	18,188	18,188	June. 1900	.01½
135	Ontario, s. l.	Utah.	15,000,000	150,000	100	90,000	13,662,500	April. 1900	.30
136	Orphan Belle, g.	Colo..	1,000,000	1,000,000	1	.....	197,899	Dec.. 1899	.09
137	Original Empire, g.	Cal...	5,000,000	50,000	100	.....	530,000	Oct... 1899	1.00
138	Osceola, c.	Mich.	2,500,000	98,000	25	279,000	3,359,500	June. 1900	3.00
139	Parrot, c.	Mont.	2,300,000	229,850	10	1,379,100	4,393,825	Oct... 1900	1.50
140	Pennsylvania Con., g.	Cal...	5,150,000	51,500	100	25,750	161,325	May.. 1900	.10
141	Petro, g.	Utah.	1,000,000	200,000	5	.....	32,000	Oct... 1899	.02½
142	Pioneer, g.	Cal...	1,000,000	100,000	10	.....	62,500	Mar.. 1899	.12½
143	Plumas Eureka, g.	Cal ..	1,406,250	140,625	10	84,375	2,797,544	April. 1900	.60
144	Portland, g.	Colo..	3,000,000	3,000,000	1	750,000	3,307,080	Oct... 1900	.06
145	Queen Bess Propr., s. l.	B.Col	500,000	100,000	5	.....	25,000	July.. 1899	.12½
146	Quicksilver, pref.	Cal...	4,300,000	43,000	100	21,500	1,866,911	July.. 1900	.50
147	Quincy, c.	Mich.	2,500,000	100,000	25	900,000	11,970,000	Aug.. 1900	4.00
148	Rambler—Cariboo, s. l.	B.Col	1,250,000	1,250,000	1	33,750	105,000	Mar.. 1900	.01
149	Republic Con., g.	Wash	3,500,000	3,500,000	1	105,000	382,500	Mar.. 1900	.01
150	Reward, g.	Cal ..	1,000,000	100,000	10	.....	20,000	Aug . 1899	.20
151	Russell-Irwin, z.	Mo ..	250,000	25,000	10	.....	15,000	Oct... 1899	.10
152	Sacramento, g.	Utah.	5,000,000	1,000,000	5	.....	138,000	Oct. . 1899	.00½
153	St. Joseph, l.	Mo...	3,000,000	250,000	10	112,500	3,272,200	Sept. 1900	.15
154	Santa Rita, g.	Colo..	1,000,000	1,000,000	1	4,000	4,000	July.. 1900	.02
155	Silver King, g. s. l.	Utah.	3,000,000	150,000	20	750,000	3,290,000	Oct... 1900	.50
156	Small Hopes, s.	Colo..	5,000,000	250,000	20	....	3,325,000	Feb.. 1899	.10
157	Smuggler, s. l. z.	Colo..	1,000,000	1,000,000	1	300,000	1,670,000	Oct... 1900	.03
158	South Swansea, s. l.	Utah.	150,000	150,000	1	.....	165,000	Oct... 1899	.05
159	Southern Boy, g.	Colo..	1,250,000	875,000	1	17,500	17,500	May . 1900	.02
160	Squaw Mountain, g.	Colo..	2,000,000	2,000,000	....	.....	10,000	Nov.. 1899	.00½
161	Standard Con., g. s.	Cal...	2,000,000	200,000	10	60,000	3,959,226	Aug.. 1900	.10
162	Standard, g.	Idaho	500,000	500,000	1	.....	1,745,000	April. 1899	.06
163	Stratton's Independ'ce.	Colo..	5,500,000	1,000,007	5	1,301,334	2,277,305	Aug.. 1900	.32
164	Swansea, s. l.	Utah.	500,000	100,000	5	60,000	256,500	Oct... 1900	.05
165	Tamarack, c.	Mich.	1,500,000	60,000	25	420,000	6,660,000	June. 1900	7.00
166	Tomboy, g.	Colo..	1,500,000	300,000	5	72,000	884,000	June. 1900	.24
167	Touraine, g.	Colo..	1,250,000	1,250,000	1	87,500	87,500	April. 1900	.07
168	Union, g.	Colo..	1,250,000	1,250,000	1	312,500	395,244	Sept.. 1900	.25
169	Union, z. l.	Kas..	500,000	500,000	1	15,000	15,000	Aug.. 1900	.01
170	United, z. l., pref.	Mo...	6,000,000	14,938	25	27,598	30,263	Oct... 1900	.50
171	United Verde, c.	Ariz..	3,000,000	300,000	10	1,650,000	2,512,500	Oct... 1900	.75
172	Utah, g.	Utah.	1,000,000	100,000	10	.....	179,000	Jan. . 1899	.02
173	Vindicator Con., g.	Colo..	1,500,000	1,065,000	1	187,625	492,125	Oct... 1900	.02½
174	War Eagle Con., g. s. c.	B.C..	2,000,000	1,750,000	1	52,500	545,250	Feb.. 1900	.01½
175	What Cheer, z.	Mo...	225,000	22,500	10	9,000	11,250	May.. 1900	.20
176	Wolverine, c.	Mich.	1,500,000	60,000	25	240,000	510,000	Oct. . 1900	2.00
177	Yellow Aster, g.	Cal...	1,000,000	100,000	10	130,000	439,416	Oct... 1900	.10
178	Ymir, g.	B.Col	1,000,000	125,000	5	.....	30,000	Nov.. 1899	.24
...	.....	.....	.....	.....	....	.....	.....	.....	.....

COAL, IRON AND OTHER COMPANIES.

Number.	Name and Location of Company.		Author-ized Capital Stock.	Shares Issu'd No.	Par Val	Dividends. Paid, 1900.	Total to Date.	Latest. Date.	Amt.
1	Alabama Coal & Iron, pf	Ala...	$2,500,000	25,000	$100	$173,250	$173,250	Nov.. 1900	1.75
2	Am. Agricul. Chem., pf.	U. S..	20,000,000	170,000	100	1,020,000	1,530,000	Oct... 1900	3.00
3	American Cement.	Pa...	2,106,000	200,000	10	80,000	140,000	July.. 1900	.40
4	American Coal.	Md...	1,500,000	60,000	25	255,000	982,500	Sept.. 1900	1.00
5	Am. Fuel & Oil.	Cal...	100,000	100,000	1	9,000	12,000	Sept.. 1900	.01
6	Am. Steel Hoop, pf.	U. S..	14,000,000	140,000	100	980,000	1,225,000	Oct... 1900	1.75
7	Am. Steel & Wire, com.	U. S..	50,300,000	500,000	100	1,750,000	1,750,000	July. 1900	1.75
8	Am. Steel & Wire, pf.	U. S..	40,000,000	400,000	100	2,800,000	5,600,000	Oct... 1900	1.75
9	Arizona Western Oil.	Cal...	100,000	100,000	1	1,000	1,000	Sept.. 1900	.01
10	Bethlehem Steel	Pa...	15,000,000	300,000	50	600,000	900,000	Sept.. 1900	.50
11	Buckhorn Oil.	Cal...	200,000	16,000	10	3,800	3,800	Mar.. 1900	.05
12	Burlington Oil.	Cal...	60,000	60,000	1	3,000	3,000	Oct... 1900	.01
13	Cambria Steel	Pa...	16,000,000	320,000	50	940,000	1,600,000	Nov.. 1900	.50
14	Colo. Fuel & Iron, pf.	Colo..	2,000,000	20,000	100	640,000	1,040,000	Oct... 1900	8.00
15	Consolidation Coal	Md...	10,250,000	102,500	100	205,000	5,921,650	Feb.. 1900	2.00
16	Empire Steel & Iron, pf.	U. S..	5,000,000	23,700	100	71,100	142,200	July.. 1900	1.50
17	Federal Steel, com.	U. S..	100000,000	464,843	100	1,743,161	1,743,161	Mar.. 1900	2.50
18	Federal Steel, pf.	U. S..	100000,000	532,610	100	5,059,794	6,657,654	Oct... 1900	1.75
19	General Chem., com.	U. S..	12,500,000	70,763	100	212,109	341,111	Sept.. 1900	1.00
20	General Chem., pf.	U. S..	12,500,000	81,264	100	365,688	519,959	Oct... 1900	1.50
21	Home Oil.	Cal...	100,000	100,000	1	173,000	173,000	Oct... 1900	.03
22	Jefferson&Clearf. C'l,cm	Pa...	1,500,000	15,000	100	30,000	30,000	Aug.. 1900	2.00
23	Jefferson&Clearf. C'l,pf.	Pa...	1,500,000	15,000	100	75,000	187,500	Aug.. 1900	2.50
24	Lehigh Coal & Nav.	Pa...	14,366,650	287,330	50	359,166	13,890,153	May.. 1900	1.25
25	Maryland Coal, pf.	Md...	$1,885,005	18,850	$100	$37,700	$584,319	June.. 1900	2.00
26	Monongahela R. Coal, pf	Pa....	10,000,000	200,000	50	350,000	850,000	July.. 1900	1.75
27	Montana Coal & Coke.	Mont.	5,000,000	200,000	25	120,000	120,000	Oct... 1900	.30
28	National Salt, com.	U. S..	7,000,000	70,000	100	140,000	140,000	Aug.. 1900	2.00
29	National Salt, pf.	U. S..	5,000,000	50,000	100	350,000	525,000	Nov.. 1900	1.75
30	National Steel, pf.	U. S..	27,000,000	270,000	100	1,417,500	2,835,000	Sept.. 1900	1.75
31	New Central Coal.	Md...	1,000,000	50,000	20	40,000	510,000	Nov.. 1900	.40
32	Oceanic Oil.	Cal...	100,000	100,000	1	1,000	1,000	Sept.. 1900	.01
33	Park Crude Oil.	Cal...	100,000	82,146	1	4,897	4,897	Sept.. 1900	.01
34	Pennsylvania Coal.	Pa...	5,000,000	100,000	50	800,000	19,700,000	Nov.. 1900	2.00
35	Pennsylvania Steel, pf.	Pa...	1,500,000	15,000	100	105,000	131,250	Oct... 1900	1.75
36	Pittsburg Coal., pf.	Pa...	32,000,000	320,000	100	2,240,000	2,240,000	Oct... 1900	1.75
37	Republic Iron & Steel, pf	U. S..	25,000,000	203,069	100	1,421,483	1,776,854	Oct... 1900	1.75
38	Rex Crude Oil.	Cal...	500,000	85,000	5	19,550	19,550	Sept.. 1900	.03
39	Sloss-Sheffield Ir.&St..pf	U. S..	10,000,000	67,000	100	351,750	351,750	Oct.. 1900	1.75
40	Standard Oil (since 1891)	U. S..	100000,000	975,000	100	37,050,000	79,375,000	Sept.. 1900	8.00
41	Susquehanna Ir. & Steel	Pa..	1,500,000	300,000	5	112,500	292,500	Oct... 1900	.07½
42	Tenn. Coal, I. & R.R..com	Tenn.	23,000,000	225,530	100	902,144	1,553,216	Nov.. 1900	2.65
43	Tenn. Coal, Ir. & R.R..pf	Tenn.	248,000	2,480	100	143,840	243,040	Nov.. 1900	2.00
44	Texas & Pacific Coal.	Tex..	2,000,000	20,000	100	120,000	605,000	Oct... 1900	1.50
45	United States Oil.	W. Va	2,500,000	100,000	25	275,000	575,000	Oct.. 1900	.50
46	Va.-Carolina Chem..com	U. S..	12,000,000	90,000	100	180,000	540,000	Sept.. 1900	1.00
47	Va.-Carolina Chem..pf..	U. S .	12,000,000	100,000	100	800,000	1,200,000	Oct... 1900	2.00
48	West Lake Oil.	Cal ..	500,000	500,000	1	45,000	45,000	Sept.. 1900	.01

This table is corrected up to October 25th. Correspondents are requested to forward changes or additions.

CHEMICALS, MINERALS, RARE ELEMENTS, ETC.—CURRENT PRICES.

	Cust. Meas.	Price.
Abrasives—		
Carborundum, f.o.b. Niagara Falls, Powd., F. FF. FFF	lb.	$0.10
Minute No. 1	"	.15
No. 15	"	1.00
Corundum, N. C.	"	.07@.10
Chester, Mass	"	.04½@.05
Crushed Steel, f. o. b. Pittsburg	"	.05½
Emery, Turkish flour, in kegs	"	.03
Grains, in kegs	"	.04½@.05
Naxos flour, in kegs	"	.03
Grains, in kegs	"	.05
Chester flour, in kegs	"	.03
Grains, in kegs	"	.04½@.05
Peekskill flour, in kegs	"	.01¾
Grains, in kegs	"	.02½
Crude, ex-ship, N. Y.:		
Kuluk (Turkey)	lg. ton	22.00@24.00
Abbott (Turkey)	"	26.50@30.00
Naxos (Greek) h. gr.	"	32.00
Pumice Stone, Am. powd.	lb.	.01@.02
Italian, powdered	"	.01½
Lump, per quality	"	.04@.40
Rottenstone, ground	"	.02¼@.03
Lump, per quality	"	.05@.14
Rouge, per quality	"	.10@.30
Steel Emery, f.o.b. Pittsburg	"	.07
Acids—Acetic, 30% pure	100 lbs.	3.50
30% ch. pure	"	6.00
80% pure	"	7.50
Benzoic, English	oz.	.13
German	lb.	.45
Boracic, cryst.	"	.10½
Powdered	"	.11
Carbolic, crude, 60%	gal.	.27
Cryst, 37% drums	lb.	.23
Liquid, 95%	gal.	.45
Carbonic, liquid gas	lb.	.12½
Chromic, crude	"	.20
Chem. pure	"	.50
Hydrochloric, ch. pure	"	.07
Hydrofluoric, 36%	"	.03
48%	"	.05
Best	"	.25
Nitric, chem. pure	"	.09
Sulphuric, chem. pure	"	.07
Sulphurous, liquid anhy.	"	.08
Tartaric, cryst.	"	.31½
Powder	"	.32
Alcohol—Grain	gal.	2.43
Refined wood, 95@97%	"	.75@.80
Purified	"	1.50
Alum—Lump	100 lbs.	1.75
Ground	"	1.85
Powdered	"	3.00
Chrome, com'l	"	2.75@3.00
Aluminum—Nitrate	lb.	1.50
Oxide, com'l, common	"	.06½
Best	"	.20
Pure	"	.80
Hydrated	100 lbs.	2.60
Sulphate, pure	"	1.50@1.75
Com'l	"	1.15@1.30
Ammonia—Aqua, 16°	lb.	.03
18°	"	.03¼
20°	"	.03¾
26°	"	.05½
Ammonium—		
Bromide, pure	"	.52@.53
Carbonate lump	"	.08¼@.08½
Powdered	"	.09¼@.09½
Muriate, gran.	"	.06½
Lump	"	.09¼
Nitrate, white, pure (99%)	"	.10½
Phosphate, com'l	"	.12
Chem. pure	"	.60
Antimony—Glass	"	.30@.40
Needle, lump	"	.05½@.06
Powdered, ordinary	"	.05¾
Best	"	.08½
Oxide, com'l white, 95%	"	.09½
Com'l white, 99%	"	.12
Com'l gray	"	.07
Sulphuret, com'l	"	.16
Arsenic—White	"	.04¼@.04¾
Red	"	.07¼@.07¾
Asphaltum—		
Ventura, Cal.	sh. ton	32.00
Cuban	lb.	.01½@.03½
Egyptian, crude	"	.05½@.06
Trinidad, refined	lg. ton	35.00
San Valentino (Italian)	"	15.00
Seyssel (French) mastic	sh. ton	20.00
Gilsonite, Utah, ordinary	lb.	.03
Select	"	.03¾
Barium—Carbonate, Lump, 80@90%	sh. ton	25.00@27.50
92@98%	"	26.00@29.00
Powdered, 80@90%	lb.	.01¾@.02
Chloride, com'l	"	.02@.02¼
Chem. pure cryst	"	.05
Nitrate, powdered	"	.06
Oxide, com'l, hyd. cryst	"	.18
Hydrated, pure cryst.	"	.25
Pure, powd.	"	.27
Sulphate	"	.01
Barytes—		
Am. Cr., No. 1	sh. ton	9.00
Crude, No. 2	"	8.00
Crude, No. 3	"	7.75
German, gray	"	14.50
Snow white	"	17.50
Bauxite—Ga. mines: 1st grade	lg. ton.	5.00
Second grade	"	4.25@4.50
Ala., f.o.b., 1st grade	"	5.00
Second grade	"	4.25@4.50
Bismuth—Subnitrate	lb	1.75
Subcarbonate	"	1.95
Bitumen, "B"	"	.03½
"A"	"	.05
"A" and "B"	"	.04½
Bone Ash	"	02¾@.03½
Borax	lb.	$ .07¼@.07½
Calcined	"	.25
Bromine	"	.40
Cadmium—Metallic	"	1.40
Sulphate	100 lbs.	2.00@2.50
Calcium—Acetate, gray	"	1.55
" brown	"	1.10
Carbide, ton lots, f. o. b. Niagara Falls, N.Y.	sh. ton	75.00
Carbonate, ppt.	lb.	.05
Chloride, com'l	100 lbs.	.90
Best	"	1.00
Sulphite	lb.	.05
Cement—		
Portland, Am.	400 lbs.	bbl. 1.50@2.00
Belgium	"	1.95@2.20
English	"	2.45@2.55
German	"	2.30@2.70
"Rosendale," 300 lbs.	"	.95
Sand cement, 400 lbs.	"	1.55@1.95
Slag cement, imported	"	1.65
Ceresine—		
Orange and Yellow	lb.	.11½
White	"	.13½
Chalk—Lump, bulk	sh. ton	2.15
Ppt. per quality	lb.	.04@.07
Chlorine—Liquid	"	.30
Water	"	.15
Chrome Ore—		
(50% ch.) ex ship, N. Y.	lg. ton	22.00
Sand, f.o.b. Baltimore	"	33.00
Bricks, f.o.b., Pittsburg	M	175.00
Clay, China—Am. com., ex-dock, N. Y.	lg ton	8.00
Am. best, ex-dock, N. Y.	"	9.00
English, common	"	12 00
Best grade	"	17 00
Fire Clay, ord.	sh. ton	4.00
Best	"	5.75
Slip Clay	"	5.00
Coal Tar Pitch	gal.	.08
Cobalt—Carbonate	lb.	1.75
Nitrate	"	1.50
Oxide—Black	"	2.26@2.36
Gray	"	2.28@2.40
Smalt, blue ordinary	"	.25
Best	"	.30
Copperas	100 lbs.	72½
Copper—Carbonate	lb.	.18
Chloride	"	.25
Nitrate, crystals	"	.35
Oxide, com'l	"	.19
Cream of Tartar—Crys.	"	.22¼@.23¾
Powdered	"	.23¼
Cryolite	"	.06½
Explosives—		
Blasting powder, A. 25 lb. keg		2.50
Blasting powder, B.	"	1.25
"Rackarock," A.	lb.	.25
"Rackarock," B.	"	.18
Judson R.R. powder	"	.10
Dynamite (20% nitro-glycerine)	"	.13
(30% nitro-glycerine)	"	.14
(40% nitro-glycerine)	"	.15
(50% nitro-glycerine)	"	.16½
(60% nitro-glycerine)	"	.18
(75% nitro-glycerine)	"	.21
Glycerine for nitro (32 2-10° Be.)	"	.14@.14½
Feldspar—Ground	sh. ton	8.00@9.00
Fluorspar—In bulk.		
Am. lump, 1st grade	"	12.40
2d grade	"	11.90
Gravel & crushed, 1st g	"	11.40
2d grade	"	10.90
Ground, 1st grade	"	15.90
Foreign, lump	"	8.00@12.00
Ground	"	11.50@14.00
Fuller's Earth—Lump	100 lbs.	.75
Powdered	"	.85
Refined lump	"	1.25
Graphite—Am. f. o. b. Providence, R.I. lump	sh. ton	8.00
Pulverized	"	30.00
German, lump	lb.	.01¼
Pulverized	"	.01½@.02
Ceylon, common	"	.03¾
Pulverized	"	.06@.10
Italian, pulv.	"	.01¼
Gypsum—Ground	sh. ton	8.00@8.50
Fertilizer	"	7.00
Rock	lg. ton	4.00
English and French	"	14.00@16.00
Infusorial Earth—Ground.		
American, best	"	20.00
French	"	37.50
German	"	40.00
Iodine—Crude	100 lbs.	2.45
Iron—Muriate	lb.	.05
Nitrate, com'l	"	.01½
True	"	.03½
Oxide, pure copperas col	"	.05@.10
Purple-brown	"	.02
Venetian red	"	.01@.01½
Scale	"	.01@.03
Kaolin—(See Clay, China).		
Kryolith—(See Cryolite.)		
Lead—Acetate, white	lb.	.07
Com'l, broken	"	.06½
Brown	"	.05½
Nitrate, com'l	"	.06½
" gran.	"	.8¼
Lime—Com., ab. 250 lbs	bbl.	.60
Finishing	"	.70
Magnesite—Greece.		
Crude (95%)	lg. ton	7.00@7.50
Calcined	sh.ton	17.50
Bricks	M.	165.00
Am. Bricks, f o.b. Pittsburg	"	175.00
Magnesium—		
Carbonate, light, fine pd	lb.	.03¾
Blocks	"	.06@.09
Chloride, com'l	"	.01¾
Fused	"	.20
Magnesium—		
Nitrate	lb.	$0.60
Sulphate	"	.01@.01¼
Manganese—Crude-pow'd 75@75% binoxide	"	.01¼@.01½
Crude, pow'd 75@85% binoxide	"	.01½@.02½
85@90% binoxide	"	.02½@.03¼
90@95% binoxide	"	.02¾@.05½
Carbonate	"	.16@.20
Chloride	"	.04
Ore, 50%, Foreign	unit	.26
Domestic	"	.30
Marble—Flour	sh. ton	5.50@6.00
Mercury—Bichloride	lb.	.74
Mica—N. Y. gr'nd, coarse	"	.04@.04½
Fine	"	.05@.06
Sheets, N. C., 2x4 in.	"	.30
3x3 in.	"	.80
3x4 in.	"	1.50
4x4 in.	"	2.00
6x6 in.	"	3.00
Scrap, f.o.b., Dillsboro, N. C.	sh. ton.	25.00
Mineral Wool—		
Slag, ordinary	sh. ton	20.00
Selected	"	25.00
Rock, ordinary	"	32.00
Selected	"	40.00
Monazite—92%	"	140.00
Nickel—Oxide, No. 1	lb.	1.00
No. 2	"	.60
Sulphate	"	.20@.21
Oils—Black, reduced 29 gr.:		
25@30 cold test	gal.	.09¾@.10¼
15, cold test	"	.10¾@.11¼
Zero	"	.11¾@.12¾
Summer	"	.09¼@.09¾
Cylinder, dark steam ref	"	.08¾@.10¾
Dark filtered	"	.11¾@.16¾
Light filtered	"	.14¾@.17¾
Extra cold test	"	.21¾@.26¾
Gasoline, 86°@90°	"	.16@.21
Naphtha, crude 68@72°	bbl.	9.55
"Stove"	gal.	.12
Linseed, domestic raw	"	.60@.63
Boiled	"	.65
Calcutta, raw	"	.76
Graphite, lubricating, Am. dry	lb.	.10
In oil	"	.12
Axle grease	"	.08½@.10
Wood grease	"	.05@.06
Ozokerite—Foreign	"	.12
Paints and Colors—		
Chrome green, common	"	.05
Pure	"	.20
Yellow, common	"	.10
Best	"	.25
Silica Graphite, thick	"	.12
Thinned	gal.	1.15
Lampblack, com'l	lb.	.03
Refined	"	.07
Litharge, Am. powd.	"	.05½@.06
English flake	"	.09½
Glassmakers, Foreign	"	.06½
Metallic, brown	sh. ton	19.00
Red	"	16.00
Ocher, Am. common	"	9.25@10.00
Best	"	21.25@25.00
Dutch, washed	lb.	.04¾
French, washed	"	.01¼@.02½
Orange mineral, Am.	"	.07¾@.08
Foreign, as to make	"	.08@.10½
Paris green, pure, bulk	"	.12
Red lead, American	"	.06½
Foreign	"	.08¼
Shellac, "D. C."	"	.28
Native	"	.15
Turpentine, spirits	gal.	.41½@ 42
Ultramarine, best	lb.	.25
Vermilion, Amer. lead, Quicksilver, bulk	"	14@.15
	"	.64
English, imported	"	.80
English, domestic	"	.74
White lead, Am., dry	"	.05¾
English	"	.06¼@ 08¾
Whiting, common	100 lbs.	.40
Gilders	"	.54
Zinc white, Am. ex. dry	lb.	.04¼@.04¾
American, red seal	"	.07¼@.07¾
Green seal	"	.07¾@.08
Foreign, red seal, dry	"	.06¼@.06¼
Green seal, dry	"	.06¾@.06⅝
Potash—Caustic, ord.	"	.04½@.05
Elect. (90%)	"	.06½
Potassium—		
Bicarbonate cryst.	"	.08¼
Powdered or gran.	"	.14
Bichromate, Am.	"	.08½
Scotch	"	.09
Carbonate, hydrated	"	.04½
Calcined	"	.04½
Chromate	"	.35
Cyanide (98@99%)	"	.29@.30
Iodide, bulk	"	2.30
Permanganate, pure cr.	"	.12½
Prussiate, yellow	"	.17¾@.18
Red	"	.37
Silicate	"	.06
Sulphide, com'l	"	.10
Quartz—(See Silica).		
Rosin—		
Com. strained (280 lbs.)	bbl.	1.55
Best strained	"	3.05
Medium	"	1.95
Salt—		
N Y com. fine	sh. ton	2.00
N. Y. agricultural	"	1.50
Saltpeter—		
Crude	100 lbs.	3.60
Refined	"	4.00
Silica—Best foreign	lg. ton	10 00@11.00
Ground quartz, ord.	sh. ton	6.00@8.00
Best	"	12,00@13.00
Lump quartz	"	2.50@4.00
Glass sand	"	2.75
Silver—		
Chloride	oz.	$0.65
Nitrate	"	.40
Oxide	"	.85@1.10
Slate—Ground, black	sh. ton	7.50@8.75
Ground, red and olive	"	20.00
Sodium—Acetate, com'l	lb.	.04¾
Bichromate	"	.06½
Chlorate, com'l	"	.08¾@.08⅞
Hyposulphite, Am.	100 lbs.	1.75
German	"	2.10@2.20
Nitrite, 96@98%	lb.	.08
Peroxide	"	.45
Phosphate	"	.02½
Prussiate	"	.14½
Silicate, conc	"	.05
com'l	"	.02¼
Sulphate, com'l	100 lbs.	.85
Gran., puri'd	lb.	.03
Sulphide	"	.01¾
Sulphite	"	.02½
Tungstate, com'l	"	.35
Strontium—Nitrate	"	.06½@.06¾
Sulphur—Roll	100 lbs.	1.75
Flour	"	1.80
Flowers, sublimed	"	2.05
Talc—N. C, 1st grade	sh. ton	13.75
N. Y., Fibrous	"	8.00@9.00
French, best	100 lbs.	1.25
Italian, best	"	1.75
Tar—Regular	bbl.	2.20@2.25
Oil barrels	"	4.15@4.30
Tin—Bichloride	lb.	.09½@.10
Crystals	"	.24½
Muriate, 36°	"	.09
52°	"	.15
Oxide, white, ch. pure	"	.41
Uranium—Oxide	"	2.25@3.00
Zinc—Metallic, ch. pure	"	.07¼@.09½
Carbonate	"	.15
Chloride	"	.05
Dust	"	.07¾@.07¾
Sulphate	"	.02@.02¼

THE RARE ELEMENTS.

Prices given are at makers' works in Germany, unless otherwise noted.

	Cust. Meas.	Price.
Barium—Amalgam	grm.	$1.13
Electrol	"	5.71
Beryllium—Powder	"	5.95
Crystals	"	9.04
Nitrate (N Y.)	oz.	2.25
Boron—Amorphous, pure	grm.	.19
Crystals, pure	"	1.43
Nitrate (N. Y.)	lb.	1.50
Cadmium—Sticks	kg.	1.55
Sheets	"	2.83
Granulated	"	2.38
Powder	"	1.90
Calcium—Elect	grm.	4.28
Cerium—Fused	"	2.02
Nitrate (N. Y.)	lb.	17.00
Chromium—Fused, Elect.	kg.	5.95
Pure powder 95%	"	1.79
Chem. pure cryst	grm.	.20
Cobalt—(98@99%)	kg.	6.66@8.33
Pure	"	30.94
Didymium—Powd.	grm.	3.81
Fused, Elect.	"	5.47
Nitrate (N. Y.)	lb.	60.00
Erbium	grm.	3.09
Nitrate (N. Y.)	lb.	62.00
Germanium—Powder	grm.	33.32
Fused	"	35.70
Glucinum—Powder	"	5.95
Crystals	"	9.04
Nitrate (N. Y.)	oz.	2.75
Indium	grm.	3.57
Iridium—Fused	"	1.07
Powder	"	.95
Lanthanum—Powder	"	4.28
Electrol, in balls	"	9.04
Nitrate (N. Y.)	oz.	3.50
Lithium	grm.	2.38
Nitrate (N. Y.)	oz.	.60
Magnesium—Ingot	kg.	6.19
In wire or ribbon	"	9.99
Powdered	"	5.95@7.14
Sheet	"	9.04
Molybdenum—Fused	grm.	.15
Powder, 95%	kg.	2.62
Niobium	grm.	3.81
Osmium	"	.04
Palladium—Wire	"	.86
Sponge	"	.62
Potassium—In balls	kg.	17.85
Rhodium	grm.	2.38
Rubidium—Pure	"	4.76
Ruthenium—Powder	"	2.38
Rutile—Crude	kg.	.43
Selenium—Com'l powder	"	26.28
Sublimed powder	"	35.70
Sticks	"	28.56
Silicium—Com'l	"	28.56
Chem. pure crystals	"	59.50
Amorphous	"	27.36
Sodium (N. Y.)	lb.	.65
Strontium—Electrol	grm.	6.19
Tantalium—Pure	"	3.57
Tellurium—Ch. p. sticks.	kg.	107.00
Chem. pure powder	"	83.30
Thallium	"	26.18
Thorium—Nitrate 49@50% (N. Y.)	lb.	4.75
Titanium	kg.	47.60
Uranium	"	190.40
Nitrate (N. Y.)	oz.	.25
Wolfram—Fused, elect.	kg.	238.00
Powder, 95@98%	"	1.43
Chem. pure powder	"	6.43
Yttrium	grm.	3.33
Nitrate (N. Y.)	oz.	62.00
Zirconium—Com'l	kg.	119.00
Nitrate (N. Y.)	lb.	9.00

NOTE.—These quotations are for wholesale lots in New York unless otherwise specified, and are generally subject to the usual trade discounts. This table is revised up to Sept. 27. Readers of the ENGINEERING AND MINING JOURNAL are requested to report any corrections needed, or to suggest additions which they may consider advisable. See also Market Reviews.